

Registration of New Companies.

The following joint-stock companies have been registered:—

CHARLTON CHALK, SAND, AND BALLAST COMPANY (Limited).—Capital 50,000*l.*, in 10,000 shares, of 5*l.* each. This company will acquire the leases of certain chalk quarries and other properties at Charlton, in Kent. The original subscribers are—George Bell, 8, Milton-terrace, Dulwich, 2*o*; shares; J. B. II, Lower Redlands, Bristol, 22*o*; R. Browne, 9, Bellevue-terrace, Queen's-road, Clapton, 22*o*; John Crowe, Wickham-road, New Cross, 22*o*; H. Rowell, Clarendon-road, College Park, Lewisham, 2*o*; F. M. Ball, 5, Argyle-place, Regent-street, 8*o*; H. P. Norris, Woodbank, Erith, 20.

RUST'S PATENT VITRIFIED MARBLE COMPANY (Limited).—Capital 60,000*l.*, in 6,000 shares, of 10*l.* each. Another company for acquiring and working patent rights. This association will purchase patents for making a new and improved material for decorative purposes. It will also manufacture ordinary glass. The first subscribers are—J. Russell Cover, Rock Villa, Wood Green; George Turley, 10, Offerton-road, Clapham; Charles Herrman, 8, Lime-street, E.C.; J. Ironside, 9, Tollington-place; John Bryer, 53 and 54, Barbican; S. E. Comyn, 21, Great-street Helen's; and B. M. Moss, 6, Newman's-row, Lincoln's Inn-fields—one share each.

NEW ZEALAND REAL PROPERTY AND GOLD MINING INVESTMENT COMPANY (Limited).—Capital 50,000*l.*, in 50,000 shares, of 1*l.* each. This company is formed to acquire land for mining and other purposes in New Zealand. Power is also taken to purchase, hold, and sell shares in mines, &c. The promoters are—G. Edmonds, Auckland, New Zealand, 50 shares; J. H. Miles, Sussex-house, Southampton, 2*o*; H. E. O. Shuttle, 16, West Front, Southampton, 20; J. E. Pearce, 3*o*, Above Bar, Southampton, 20; H. Hale, 4, New-road, Southampton, 20; W. Burbridge, 12, St. Andrew's-road, Southampton, 20; and C. Fletcher, Rockstone Villa, Avenue, Southampton, 20.

SUNSIDER AND MERRYFIELD LEAD MINING COMPANY (Limited).—Capital 15,000*l.*, in 7,500 shares of 2*l.* each. To acquire from the Niddesdale Lead Mining Company (Limited), in voluntary liquidation, certain mine in the townships of Beverley and Stonebeck Down, in the West Riding of Yorkshire.

BETTESFIELD COLLIERY COMPANY (Limited).—Capital 150,000*l.*, in 150 shares of 1000*l.* each. This company will acquire the interests of Sir W. Jackson, Bart., and Mr. J. Ravenscroft in certain collieries at Bagillt, in Flintshire. The subscribers are—Sir W. Jackson, 61, Portland-place; John Ravenscroft, Langdale House, near Birkenhead; H. M. Jackson, Lincoln's Inn; Wm. Jackson, Jun., 12, Forest-road, Birkenhead; E. P. Jackson, 14, Odessa-terrace, Middlesex; and J. P. Jackson, Walton Cottage, near Chesterfield; T. H. Jackson, Manor House, Berkenhead.

AMMONIA, BONE, AND MINERAL PHOSPHATE COMPANY (Cook's Chemical Works), Limited.—Capital 100,000*l.*, in 20,000 shares of 5*l.* each. This company is formed for the purpose of acquiring and developing the artificial manure and chemical works of Mr. George Cook, at Milwall. The promoters are—Thomas Pickford, 27, Broad-lane; H. Stephenson, 3, Newman's-court, Cornhill; W. M. Watmough, 3, Newman's-court, Cornhill; T. P. Pickford, 17, Old Kent-road; G. Cosca, 3, Newman's-court, Cornhill; James Clark, Guildford-road, Clapham; and R. A. Passmore, 86, Lancaster-road, Kennington-park. One share each.

SAN PEDRO CHILI COPPER MINING COMPANY (Limited).—Capital 10,000*l.*, in 25,000 shares of 2*l.* each. This company is formed to purchase the San Pedro Copper Mine, &c., situated about 6*m.* from Chanaral, in Chili. The subscribers are—T. C. Munday, 13, Angel-court; Henry Buxton, 18*o*, Basing-street; M. Tremayne, Falmouth; R. W. Bishop, 17, Throgmorton-street; John Kendall, Redruth, Cornwall; C. S. Lamb, 8, Clifton-road, St. John's Wood; and F. R. Wilson, 20, St. Helen's-place. Each one share.

IRISH TRAMWAYS COMPANY (Limited).—Capital 100,000*l.*, in 100,000 shares of 1*l.* each. To obtain concessions for the construction of tramways in Ireland is the end in view with this company. The subscribers (who take up one share each) are—Thomas Selby, 19*o*, St. George's-road, Peckham; George H. Jarvis, 9, Buckingham-gate; Frederick W. Hooper, 10, Crosby Hall Chambers, E.C.; Edward Lund, 65, Gracechurch-street, London; Wm. Monroe, 1, South Sea House, E.C.; George Holcroft, Byron's-court, St. Mary's Gate, Manchester; and A. D. Dodwell, 7, Idol-lane, E.C.

Meetings of Public Companies.

EBELHARDT AND AURORA MINING COMPANY.

An ordinary general meeting of shareholders was held at the City Terminus Hotel, on Thursday, for the consideration of the account and balance-sheet of the company up to Dec. 31, the appointment of directors and auditors, the consideration of ways and means, and the transaction of the ordinary business of the company. And, after the conclusion of such business, the meeting was made special, for the passing of such resolutions as may be considered expedient for raising monies, to such extent, and by such mode, whether by the issue of shares or by borrowing.

Mr. J. D. DE PASS in the chair.

Mr. ALFRED CRITCHETT (the secretary) read the notice convening the meeting.

The CHAIRMAN said this meeting had been convened for the purpose of receiving a report and statement of accounts. At the time the circular was issued the directors fully believed that the accounts from the other side would have been received and circulated among the shareholders; but, owing to the state of the weather on the Pacific coast, the mails had been delayed, and the accounts up to this moment had not been received. Telegrams, however, had come to hand which could not be deemed indicating a satisfactory condition of the company's affairs. The intention of the board upon the present occasion was to propose, after some formal business had been disposed of, to move the adjournment of the meeting for four weeks. He explained that two of his colleagues and himself were elected members of the board by a committee of shareholders representing a large interest in the company, and within a week of that election, without hearing one word from their late Chairman of his doubts as to the efficiency of the manager, an intimation was received that a change of management should be made. Neither himself (the Chairman) nor his newly-elected colleagues were prepared for such a radical change as they were asked to make. The board thought it would be hazardous in the critical condition the company then was to make a change of management. The question was debated for some weeks, when Mr. Ridsdale and one other director retired—there being one and one only point of dispute. It was simply the question of the management of the company, upon which he contended that the new members of the board had every right to satisfy themselves before allowing such a radical change to take place, and especially when it became known to them that the manager of the company possessed the entire confidence of the bankers out there. The board decided that a man of the highest character should be found to inspect the mines, and report upon their management; and after some delay it was decided that Prof. Clayton, a gentleman well known in the mining world as a man of very great experience and ability, should examine and report upon the property, upon its management, and upon its future prospects. They had not yet received Prof. Clayton's reply *in extenso*, but the Professor had sent a telegram, which must be deemed most satisfactory. It was as follows:—“Mines skillfully opened; prospect excellent; Phillipotts' management thoroughly approved; full report as soon as possible.” That report had not yet come to hand, but the information contained in the telegram fully justified the course pursued by the directors in not having summarily dismissed the manager. He (the Chairman) had made some enquiries respecting Mr. Phillipotts from the agent of the company's banker in this country. The result was that Mr. Phillipotts enjoyed their full confidence, and that while he was the manager they had no hesitation in coming to the support of the company in case of any financial emergency. As to the poor results realised during October, November, and December, he might mention that when Mr. Ridsdale last addressed the shareholders he announced the result of one month's operations at 700*l.* profit, while in August it amounted to 14,000*l.* Mr. Ridsdale added that this was one of those extraordinary fluctuations which they seemed destined to undergo in treating this particular class of ore. Mr. Ridsdale further mentioned that owing to the circumstance of the ore having been treated which had been blasted down from the roof of Ward Beeches they had not realised an average result; and that remark applied with equal truthfulness to October, November, and December, and even partially to January, although a brighter day was at the present moment dawning upon them, for richer ore was now being brought to the surface. He now come to the justification of Mr. Phillipotts, who it appeared had previously advised the board that this overhanging mass of rock was attended with a great deal of danger to the miners, and that it was becoming more and more dangerous. There were two courses open—to blast it down and clear it away, or at considerable expense to timber it up. Mr. Phillipotts determined to blast it down, and no doubt it proved to be a much larger mass than contemplated. Then came a fresh difficulty—the crushing of the blasted rock would be far cheaper eventually than if the ordinary monthly cost had been incurred without any returns to meet it. Within these last six weeks this debris had been removed, and the property appeared to be reviving, yielding what might reasonably be expected of it. The

assays to hand for these last five weeks, from Feb. 10, when the debris was entirely removed, to March 1—the average was \$42 for the pulp. The quantity of rock crushed was something like 2000 tons. The average for the pulp for the week ending March 2 was \$51 per ton—this, again, entirely confirmed the directors in the soundness of their judgment in regard to the manager. (Hear, hear.) So far as the directors could make out the present financial condition of the company was as follows—in January the debts on the other side amounted to 2000*l.*, of which 700*l.* was due to the company's bankers and 2000*l.* to the White Pine Waterworks. The last-named item might be altogether disposed of, since the waterworks was now the property of this company. As to the 700*l.*, from an estimate which had been made of the profits of the mines in the month of February, if they were going on in precisely the same way for the present month, it might be fairly stated that at the end of this or middle of next month, that debt would be extinguished. (Hear, hear.) On this side the question with the vendors remained to be settled; but an arrangement had been opened which he hoped would satisfactorily solve the matter. In cash and unpaid calls, 2600*l.*—there were no liabilities whatever; but the directors did not think it was to the interest of an enterprise like this that they should possess no power to borrow money upon an emergency. Of the 2350 shares which the late directors were empowered to issue 964 were allotted; and the board were unanimously of opinion that it would be extremely unwise to part with the unissued shares at anything like the present market price. Therefore, they were going to ask at the special meeting the sanction of the shareholders for power to borrow money that might be required for the purposes of the company. The original directors appeared to have made a very satisfactory arrangement with regard to the purchase of the property, for which great credit was due to them. They had erected a mill second to none on the Pacific coast, capable of crushing something like 4200 tons per month; and at a cost of 60,000*l.* they had also constructed a wireway, which, it afforded him much pleasure to state, was working with remarkable regularity, and, as compared with the working under the old systems, would effect such a considerable saving that in the course of two years the total cost of 32,000*l.* would be recouped to the company. So that, with regard to the mill, tramway, and the purchase of the White Pine Waterworks, the late board were entitled to the respect of the shareholders of the company. (Hear, hear.) They possessed a vast mining property, of considerable value, and he believed that in Mr. Phillipotts they had an energetic and enterprising manager; he had never heard a single blurt upon his character, or a single slur upon his high honour and integrity, which was a most essential thing to the directors, who had to conduct the company's affairs at such a great distance. The best body of directors on this side could do comparatively nothing, and, therefore, they must be assured that the manager was a thoroughly honest, upright, and scientific man, and possessed of ability. As to the value of the mine, he might state that from Sept. 11, 1870, to Jan. 21, 1872, the silver returned had realised the gross sum of 150,000*l.*, and the amount of profit was about 30,000*l.* or 35,000*l.*, which showed what the property was capable of doing. Since the new directors had been appointed their attention had been constantly directed to a reduction of the expenditure, and within the last three or four months a saving had been effected of something like \$3300 per month, representing in round numbers 1700*l.* If they could continue in the same direction a great source of profit must arise from a saving in the expenditure. He believed they could effect a profit, and a good profit, by saving in the working costs. They were promised some further reductions, by which they were in hopes that even if the rock yielded only an average assay of \$35 or \$37 per ton there would be a considerable profit for the shareholders. (Hear, hear.) As to the item for fire insurance, it would involve an outlay of the sum of 4000*l.* per annum to cover the cost of their respective works, but it was the opinion of the directors that only a portion would be insured, because in case of a fire their great loss would be the stoppage of the mines, against which they could not insure. Hence they suggested that they should be allowed to keep a moderate sum insured upon a portion of the property—in other words, become their own underwriters. He could only say, in conclusion, that he should be glad to offer any information the shareholders might desire.

A SHAREHOLDER came into that room with a very different opinion as to their manager to that expressed by their present Chairman; but it appeared certain that Mr. Phillipotts should be kept under control.

Mr. BRIDGEWATER complained of their late Chairman having deserted the ship when it was in peril. Before resigning his seat, it was Mr. Ridsdale's duty to have convened a special meeting to consider the question. It was quite evident that Mr. Phillipotts required some control, and he thought Mr. Ridsdale deserved the censure of shareholders for the manner in which he had acted. The very fluctuating character of the enterprise was to him a great charm, and he believed it would yield fair average results.

Mr. BAXTER considered that credit was due to Mr. Ridsdale for having acted with sincerity. He complained that great injustice had been done to the shareholders in the concealment of the company's affairs.

Mr. T. G. TAYLOR did not think Mr. Ridsdale could have acted in any other way than he had done, knowing that Mr. Phillipotts' reports were unreliable; and no person was better able to form an opinion upon Mr. Phillipotts' capabilities than Mr. Ridsdale, and he hoped to see that gentleman before long re-occupy that chair. (Hear, hear.)

Mr. RIDSDALE stated that Mr. Phillipotts' appointment was one in which he did not concur in the first instance, but, being opposed by a number of the directors, and among them Mr. Applegarth, he waived his opinion upon the ground that Mr. Phillipotts should have a fair trial. He (Mr. Ridsdale) found that all Mr. Phillipotts' estimates were wrong, and he came to one of two conclusions—either the ore which Mr. Phillipotts said was in the mines he could not get out, or that he reported erroneously. Mr. Phillipotts told them at the outset there was no necessity for any working capital; that the International Mill, which cost 45,000*l.*, would cost 60,000*l.*; that the tramway would cost 50*l.*, which had cost 35,000*l.*; and that the question of water was to be settled for 20*l.*, when they had to buy the White Pine Waterworks. It was afterwards found that Mr. Phillipotts had positively never seen the springs. What he wished now to know was, how was the amalgamation going on? for that was the most important point of all. He had sent out a most able metallurgist, recommended by Dr. Percy, but Mr. Phillipotts put him on one side. Therefore, the only course left open to him (Mr. Ridsdale) was either to bring about a change in the management or resign; and he would not subscribe any more money under Mr. Phillipotts' management. Even the question of policy in retaining Mr. Phillipotts as manager he very much doubted. He felt conscientiously that he could not sit at the board as the mouthpiece of statements and estimates that were never realised. But at any future time his services would be entirely at the disposal of the shareholders; but he would not sit at the board to countenance a management he considered to be totally opposed to the best interests of the company. (Hear, hear.)

Mr. A. H. PHILLPOTTS (a large shareholder, and brother of the manager) said he had not heard a single statement which was not capable of entire and complete explanation. He had no confidence whatever in Mr. Ridsdale, and he plainly avowed it. When the contract for purchase was made the price to be paid was 300,000*l.*, out of which sum the vendors were to provide a mill. Their chief agent (Mr. Phillipotts) formed his own opinion, and declined to buy the property at the price, when the vendors earnestly solicited him to purchase it for 200,000*l.*, which he declined. Mr. Phillipotts would not allow the vendors to have the management of the property in their own hands for 18 months, nor to supply the mill, both of which were embodied in the contract. He then read a letter from Mr. G. H. Horsfall (who is a shareholder in the company) testifying to the experience and ability of Mr. Phillipotts.

Sir JOHN SWINBURNE rose amid cries of “Time, time,” and said that Mr. Phillipotts would be best serving his brother's interest by not speaking in the present temper of the meeting.—Mr. PHILLPOTTS consented to sit down, upon the condition that he should have a hearing at the adjourned meeting.

The CHAIRMAN said that the only one complaint he had to urge against Mr. Ridsdale was that when he (the Chairman) was solicited with two other gentlemen to take a seat at the board, Mr. Ridsdale did not explain the fact that he had any doubt whatever with regard to Mr. Phillipotts' management. He became a shareholder in this company upon reading Mr. Ridsdale's statement; and he did complain that Mr. Ridsdale had not stated that he was at variance with their manager—that was the only grievance he had against Mr. Ridsdale. Within the short period of one week after he became a director of the company Mr. Ridsdale sent into the board a *sine qua non*—either that the manager was got rid of or he should resign. He (the Chairman) entreated Mr. Ridsdale to reconsider his decision; and he was now perfectly willing to resign if the shareholders thought the affairs of the company would be better managed by any other board. Mr. Cooper agreed with Mr. Ridsdale, and retired with him. Messrs. Hammond, Ruck, and himself held 500 shares each, and neither had ever held one less or one more. As to the new issue, which took place when the old board was in full force, he was one of those who took his proportion and paid for them; and, much to his astonishment, after he became a director he heard that only 1000 had been taken. In justice to the secretary, he was bound to say that many gentlemen had paid up their shares in full, and Mr. Critchett assumed that the amount paid into the bankers only represented the application money. In reply to other questions, he stated that Colonel Bulkeley inspected the property on behalf of the United States Government, and the only value of his report was in the statement that the mines did contain a very large number of tons of rock. Professor Clayton's name was handed to the board as being one of the most eminent mining engineers on the Pacific coast. As to the withholding of information, the fact was that the telegram from Prof. Clayton was only a corroboration that Mr. Phillipotts was conducting the affairs at the mine in the proper manner. If the weekly assays of the ores were published it might mislead. What the board wanted to do was to make the property a regular and permanently profit-yielding concern, and as soon as the ship was regular regular monthly returns as to the state of the mine and its working would be printed and circulated among the shareholders. (Hear, hear.)

The election of Messrs. J. D. De Pass, J. Ruck, and J. Hammond, as directors, was confirmed. Mr. S. Sater was re-elected auditor.

The meeting then adjourned till April 10.

A special general meeting was then held, at which the directors were given power to raise money to any amount not exceeding 35,000*l.*—represented by the CHAIRMAN did not apprehend there would be any necessity to exercise those powers, under any circumstances, to only a moderate amount; and they hoped to be able to keep the unissued shares in the box.

A vote of thanks to the Chairman and directors concluded the proceedings.

THE EMMA SILVER MINING COMPANY OF UTAH.

The four monthly statutory meetings of shareholders was held at the City Terminus Hotel, Cannon-street, on Thursday, Mr. GEORGE ANDERSON, M.P., in the chair.

The CHAIRMAN stated that they were aware that this was the statutory meeting which must be held within four months of the incorporation of the company, and that at such meetings it was not usual to hand in a formal report from the directors. He proposed, however, to make a few observations, and he might congratulate them that it was not often that the chairman of a company was able to make so highly satisfactory a statement. It was not four months since the prospectus was brought out, and he believed there was not a director who did not look with suspicion on the statements in the prospectus submitted to them previous to its issue. For this reason they took more than usual care to test the accuracy of every statement made. They were all particularly careful to ascertain the truth as to the past history of the mine, and with respect to the future they had taken every precaution to avoid being mistaken. They had nevertheless had to encounter considerable opposition, one or two points of which he would briefly refer to. It had been stated that their title was not good, but this had been refuted, for the trustees had been instructed to satisfy themselves thoroughly before handing over the money, and the result of their enquiries was that they were perfectly satisfied. They had taken the opinion of Mr. Evans, one of the most competent lawyers in the United States, and the vendor had moreover offered to guarantee them against all contingencies, upon condition that they (the vendors) should have the defending of one action. As to the price of the mine they were told that it was impossible for a mine to be worth the amount paid for it. As regards the 1,000,000*l.* paid for the mine the whole amount was not speculative. They had the certificate that they were getting property worth 6,000,000*l.* in the shape of ore discovered, and much more existed which was not taken into account. Perhaps no company had been so persistently set upon by the “bears” on the Stock Exchange as the Emma. They could obtain complete lists of shareholders at the statutory price, and their issue circulate and newspapers containing adverse statements. Many shareholders had, no doubt, been surprised at the disinterested information that had been sent to them with a view to prove that the mine was worthless, and that it was desirable to sell their shares as speedily as possible, and he might congratulate them that in answer to all these adverse opinions he could inform them that every statement in the prospectus had been verified to the utmost. It was estimated that the property to be in the hands of the company by the end of February was 181,000*l.* That sanguine estimate had been much exceeded, and he did not think that any statement of the directors remained unfulfilled, except that they expected to have the money in London by the date, whereas it was only on its way here—some at Liverpool, and some at various points of the journey. All the way over had been very urgent the arrival of an English director should be sent over to the property as the representative of the company, and Mr. Brydges Willyams had agreed to go. He had been detained in his journey out by the unusual snow, which had prevented them from getting the home, so that they had been unable to get a detailed report from him. Mr. Willyams had gone out accompanied by Senator Stow Jr. and Prof. Stillman, and had already been enabled to communicate with them by telegraph. The telegram stated that the mine looked better than when Prof. Stillman made report upon it. New explorations showed large quantities of ore which was not then in sight. They had shipped and sold 1,400 tons more ready for shipment, the company 3600 tons of first-class ore, and 1000 tons more ready for shipment. The quality was about the same as that raised by the previous owners. The quantity and quality of the second-class ore was about the same. They were at the present time raising about 40 tons of ore a day, and that quantity could be increased if desired. There is sufficient timber around the mine for the purposes of the mine, and he (the Chairman) was of the opinion that the company could produce full quantity of ore estimated in the prospectus. They were quite satisfied that the title is perfect. The wire tramway, smelting works, and other mines were still under consideration. The second telegram, which had been received that morning, stated that the improved development and discoveries in new ground entirely confirmed previous reports. Of the 3600 tons sent away or sold for a count of the company, 120 tons had arrived and was sold; the remainder was on the railway. They might estimate the 400 tons at 2*l.* per ton net, which was under the price realised, which gave an aggregate of 800*l.* They got the balance of the old sales from the vendors, 46,300*l.*, in cash; the second-class ore at the mine was worth 65,000*l.*, “and more,” according to the statement in the telegram, giving an aggregate of 240,000*l.*, so that in the first four months' working they had taken out nearly a quarter of a million of stuff; they had paid 57,000*l.* in dividends, and had 183,000*l.* in hand to pay future dividends. They had, therefore, cash in hand for twelve months, divided at 18 per cent. They were taking out 40 tons per day, which would give them a return of 112*l.* per day, or nearly double the amount required to pay 18 per cent. dividend. They would remember that the prospectus stated that the dividend would rest at 18 per cent. until they had 18,000*l.* This he believed they would soon have, when they would be in a position to increase the dividends.

A SHAREHOLDER enquired whether the 41 tons per day being raised was first-class ore?—THE CHAIRMAN said the telegram did not say it was first-class ore, but they presumed it was so as the second-class ore had not been taken into consideration. He hoped that when they had letters from Mr. Willyams and Prof. Stillman they would be able to give them every detail. He did not think he had much more to say with regard to the property, but might add that the vendors had acted in the most fair and straightforward manner towards them—he might congratulate them upon having acquired one of the most remarkable mines in the world.

Mr. RUBRIES enquired what interest certain parties (a list of whose names he read) had in the company, how the directors were qualified, what Mr. Albert Grant had to do with the business, and whether it was not true that he got 100,000*l.* for floating the company?

Mr. PARKE, a director (in consequence of the simultaneous statement of shareholders in various parts of the room that such enquiries had nothing to do with the business of the company), expressed the hope that any gentleness he would be allowed to ask any questions he liked, and could assure the meeting that the directors would answer them fairly and in a straightforward manner.

Mr. RUBRIES, pale with rage, and amidst constant cries of “Sit down,” “Turn him out,” &c., continued his enquiries, asking whether Mr. Baxter and Mr. S. Ewart had ever attended a directors' meeting, and if so, how many; had they received fees for so doing, what accounts were open at the Emma office; had they a director's fees account open (the did not say posted), salary account, working expenses account, stationery account, dividend account, call account, allowances account, and deposit account? In fact, he had any accounts open except capital account, vendors' account, and bankers' account? The shareholders might attempt to bow him down, but they would not do it. What he said was true, and if the shareholders did not care for their interests he was sorry for it.

Mr. BOMPAS, the solicitor of the company, said that Mr. Rubries held but a single share in the company, which he had

property to the company was registered about six weeks ago, but the exact date of registration he could not tell them until they had advices from Mr. Willyams. As to the investigation of the title, they considered it preferable to employ a first rate American lawyer, who might naturally be supposed to be better acquainted with the subject than an English lawyer could be expected to be; they did not see that it was necessary to send out an English lawyer to investigate an American title. As to the future value of the mine, they had Prof. Stillman's report, which was favourable, and they had now the statement from Mr. Willyams that Prof. Stillman's report was more than confirmed. Prof. Stillman enjoyed a world-wide reputation, and the value of his report was very great, but it cost the company nothing; he was not employed by the vendors, but all his expenses were paid by the vendors, because the vendors had a distinct arrangement that they should not be required to pay anything whatever. As to the shares of the company not being quoted in the Stock Exchange List, the reason was very simple. The directors were not aware that it was an inflexible rule of the Stock Exchange Committee to grant no quotation for the shares of a company in which the vendors held more than one-third of the shares. In their case the vendors held one-half of the shares, so that to have applied for a quotation would only have been to meet with a refusal. The directors, therefore, applied for a settlement only, and the Stock Exchange Committee, upon the several documents connected with the formation of the company being placed before them, granted the settlement at once.

Mr. GLENN enquired whether the withdrawal of General Schenk from the board was entirely from political considerations or whether there was any other cause? — The CHAIRMAN did not know whether General Schenk was in the room, and would like to answer for himself; but he might assure them that he left the board entirely from political motives. The enemies of the political party in the United States to which he belonged made a great handle of his position on the direction of an English public company, and, as the presidential election was approaching, his friends considered it desirable that he should retire. General Schenk, however, in joining the board, had merely fulfilled a promise he had given before he had been sent as Minister to this country. When the company was formed he took a large interest as a shareholder, and that interest he had never diminished.

Mr. HOARE enquired how it happened that so much ore had been sent forward just about the time of the transfer of the property to the company, more than either before or since?

The CHAIRMAN explained that during the working of the old company the railway company were bound to take the ore to New York at a low rate, and had given notice that with the new company the contract would not be entered into. The new rate, which was fixed to come into operation at a certain date, was about double the old one. The mine was, therefore, driven at a high rate, so as to get as much ore as possible over the time at the old rate. They had, as they were aware, thought of the erection of smelting works, and the information gained by Mr. Willyams would enable them to determine upon this question. They believed the erection of smelting works would give the company an advantage of 10,000 per annum, and if they determined to erect them the weight to be carried over the railway would be materially lessened.

Mr. PARKER, as the representative of the vendors, had noticed that a number of questions had been asked connected with the property, both in the room and out of it, and upon some of these he would like to make a few observations. In the first place, it was asked why a property yielding so much was brought here to England? This could be very easily explained. The mine was discovered in 1870, and ore was sold up to the middle of 1871, when they made the purchase. At that time there were many lawsuits pending in connection with the mine; in fact, they always had quite a number of lawsuits as soon as a mine was proved to be worth anything, as half-a-dozen were sure to claim having discovered it previously. The consequence was that it was about a safe case out in Utah to estimate the value of a mine by the number of lawsuits running upon it—the best mine was that which had most lawsuits. He purchased the title with all risks, and relied upon making the title good. Now, he might tell them that a United States patent under the law of 1866, whereby the property was vested in the United States Government, and the miner held under the Government convey just as perfect a title as that under which any gentleman in England holds his landed estates. The United States patent was obtained and all claims settled for the amount of \$1,500,000, and it was arranged that all obtained beyond this sum should be divided among the new proprietors. Owing to disputes between those concerned, it was determined to sell the mine to third parties, and he came over here with only Prof. Blake's report. As to the past history of the mine, he knew everything, and felt it was useless to bring over several reports, as any purchaser would naturally refuse to buy until they had ascertained the value of the mine in the opinion of a reporter selected by themselves. The vendors selected Prof. Stillman, and he could assure the meeting that if he had not entered into a contract before Prof. Stillman's report was received he would have been very doubtful whether he would sell for the \$1,000,000 agreed upon. As to Mr. Grant's connection with the matter, he would say that when he came over here he was introduced to Mr. Grant, and arranged for him to bring out the company at a certain fixed charge. As vendor, he (Mr. Parker) had received the whole of the purchase-money stated in the prospectus, and he could say Mr. Grant did not receive 100,000,000, nor 2 percent of the amount. Mr. Grant undertook to do the necessary work for a very small commission, but Mr. Grant never took any risk in the matter, and if he held any stock in the company it was only such as he had purchased in the market like other people; he had never purchased a dollar's worth of stock from the vendors. As to certain directors taking their seats at the board, he might tell them that Mr. Baxter had never been over here, and, therefore, had not attended the meeting; Mr. Stewart was over here, and attended the meetings until he returned to America. In conclusion, he would say that if any gentlemen among the 1800 shareholders in the company were dissatisfied, and wanted to return their shares, he would relieve them of them, and pay them back their money.

After some further conversation Mr. BEAR proposed a vote of thanks to the Chairman, and directors.

Mr. ROUSE, in seconding the proposition, thought it might be worth mentioning that Mr. Willyams was accompanied by a practical miner, the value of whose services were so fully recognised in this country as to secure him a salary of £2000 a year.

The vote was then put to the meeting, unanimously carried, and acknowledged, and the proceedings terminated.

SAN PEDRO (CHILI) COPPER MINING COMPANY.

An influential meeting of gentlemen interested in the development of this property assembled at Mr. Wilson's office, St. Helen's-place, on Wednesday, — Mr. THOMAS CLEMENT MUNDEY in the chair.

Mr. WILSON said that this preliminary meeting had been convened for the purpose of submitting some important facts that had not been set forth in the prospectus. There were present two practical gentlemen who had been connected with the property for many years. He referred to Capt. Kitto, who was the manager, and Mr. Phillips, the engineer under the late Mr. Sampson Waters at the time the mines were discovered and during their subsequent development. Captain Kitto had been repeatedly solicited to take the management of other mines in Chili, but had consented to renew his connections with this property for reasons he would himself state.

Capt. KITTO said these mines were discovered about fifteen years since, and were worked by the late Mr. Sampson Waters. He fully confirmed every statement in the prospectus. The average width of the lode was above 40 ft. (the ores chiefly composed of grey and yellow sulphurates and native copper, yielding a high percentage of copper), and had been rich from the surface to the 110 fm. level, where the mine was lost in consequence of the running in of the shaft from near the surface to the bottom, which rendered it necessary to sink a new shaft from the surface, which had been done, and is now completed to the 135 fm. level, or 25 fms. deeper than the run. This had taken nearly eight years to accomplish, at an outlay of about 40,000. The net profits realised by the late Mr. Waters from 1857 to 1863, when the "run" took place, amounted to upwards of 200,000. During the years 1862 and nine months of 1863, the profits of which amounted to 44,000, and 33,000, respectively, copper was selling at a less price than at present.

Mr. WILSON wished to ask Capt. Kitto whether the new shaft had been sunk in the wrong place? He merely put the question to answer a rumour which had been set on foot. — Capt. Kitto said it afforded him much pleasure to state that the shaft had been sunk in the right position. Had this shaft been continued and the lode drained, instead of opening upon it, he had no doubt that during four years there would have been done at least four times as much work as was done; and he should propose to sink that shaft 20 fms. deeper before again cross-cutting, and then put in a "backing," and after having taken away the ore fill up with "deads." By pursuing that course at least 2000 a-year would be saved in timber, and 600 a-year in labour.

Mr. WILSON said Capt. Kitto had left the mine. — Capt. Kitto said it was commenced under Capt. William Phillips. — Mr. MICHELL said that was after his brother had left the mine. — Capt. Kitto added that the new shaft could not possibly have been sunk in a better position, for various reasons, not the least important of which was that it was out of the influence of the loose ground. The lode was in firm ground, and by filling up the excavations as the ore was removed the ground would be kept in its place. As he had already said, the lode was 40 ft. wide. — The CHAIRMAN said they were working the lode in Van on the same plan, by which an enormous outlay for timber was saved, and at the same time the security of the property increased.

Mr. WILSON, in reply to a question, stated that at the time the mine was worked by Mr. Waters not only was copper at less than the present price, but the produce of the ore was 25 per cent, it now being 40 to 50 per cent, the produce progressively improved in depth. — Capt. KITTO said the lode produced yellow sulphurates and grey ore, which never failed in Chili to prove permanent in character.

The CHAIRMAN asked Capt. Kitto the amount of yearly profits he estimated would be realised? — Capt. KITTO said that, calculating only 6000 quintals per month of 40 per cent. ore, the yearly profits would be 48,000. (Hear, hear.) As he had already said, he proposed to sink the shaft 20 fms. deeper before again cross-cutting. They could sink at the rate of 3 fms. per month. He knew many mines in Chili that were highly productive 100 fms. deeper than San Pedro.

Mr. WILSON mentioned that every statement put forward in the prospectus in regard to the profits realised was taken from Mr. Waters' private balance-sheets.

The CHAIRMAN asked Capt. Kitto how long it would be before the body of ore was reached in the 135 fm. level? — Capt. Kitto said he fully expected it had already been reached. Something like 48,000, had been expended and paid for sinking that shaft, of which about 11,000, or 12,000, was provided by the ore returned from the shaft during its sinking. The ore had increased in richness in depth from 18 to 45 per cent. The bulk of the ore had been left between the 110 and the 125, and between the 125 and 135 it was wholly untouched. He had equally as much confidence in the results from the Manto Vadre, which was a virgin lode, and he knew that the late Mr. Waters had the highest opinion of it. The new shaft was in the right position for the two lodes.

Mr. TREMAYNE mentioned that Mr. Watt, as the receiver appointed by the

Court of Chancery, was not permitted to expend money at any point that would not yield ore, which was the only reason the Manto Vadre was not developed.

Mr. WILSON said the company had acquired three distinct mines besides San Pedro—the Santa Elena, Cuba, and San Antonio. According to the last advices Santa Elena was returning rich stones of ore, of 60 per cent. produce, at a depth of only 14 fathoms from surface. The lode was described as being well defined, and that its indications were infinitely superior to those at San Pedro at a corresponding depth.

Mr. P. KITCHEN asked whether it was proposed to work these three other mines? — The CHAIRMAN said it might be decided at some future time to dispose of them to separate companies. Santa Elena was within a mile and a half of San Pedro.

Mr. MICHELL asked what was the largest quantity of ore returned in one month? — Mr. PHILLIPS recollects 16,000 quintals being returned in one month, the ore averaging 28 per cent. — Capt. KITTO also recollects that for several months 10,000 or 12,000 quintals per month were returned.

Mr. KITCHEN asked if the ore was smelted in Chili? — Capt. KITTO said the ore was carted to the coast, a distance of about 50 miles, and shipped to Swansea and Liverpool. Ores from 12 to 20 per cent. it would be well to sell in the country; but all above that percentage would be most profitably sent to England. There was an admirable cart-road from the mines to the port of Charalal. He should like to go back to the mines to prove the correctness of his idea as to some economic working.

Mr. TREMAYNE read an original document, in which the reserves at the then price of copper were estimated at \$50,000,000, sterling, but which Mr. Tremayne showed would now be worth more than double that amount.

Mr. PHILLIPS had known the mine from its commencement, and its peculiarity had always been that under the poor floors the lode was found very rich, and it was his firm conviction that when the shaft had been sunk 50 fms. below its present depth the produce of the ore would be found to be from 60 to 70 per cent. There was no reason whatever why the lode should not prove better than it had been for 100 fms. deeper. The price of carting to the port was 53 c. per quintal—equal to about 3s. per cwt. When Mr. Waters was making a profit of 50,000, per year they had to cart double the quantity of ore than they would have now to do, owing to the increase in the produce. He quite approved the plan about to be adopted by Capt. Kitto for working the mine—it had been talked about for years. He talked to Mr. Waters about it 12 years ago, and if it had then been adopted the "run" would not have taken place. The new shaft was one of the best in Chili, and was not excelled by any in Cornwall. The wages and general costs were about the same as when Mr. Waters worked the mine, and the 10,000 per year they had to cart double the quantity of ore than they would have now to do, owing to the increase in the produce. The only capital required would be for the purchase and erection of more economical machinery.

Mr. MARGETTS asked what additional depth the present engine would develop the mine? — Mr. PHILLIPS said there was scarcely any water, and, therefore, they did not so much depend upon pumping-power to increase the depth. Mr. Waters rose 16,000 quintals of ore per month by means of horsepower. The engine proposed to be erected would cost between \$5000, and \$6000.

Mr. HUNT asked how long it would take to erect the engine? — Mr. PHILLIPS replied about twelve months; but large returns and profits were now being made, and would continue to be made, but would be largely increased and the expenditure reduced as soon as the engine shall have been erected.

Mr. WILSON mentioned that all expenses were paid by the vendors up to the end of February. There were no dues, save a small customs royalty, upon the shipment of the produce from Chili, amounting to about 2 per cent. upon value. He also mentioned that a lead lode had just been discovered at surface, and that the agents thought very highly of it—the importance of this discovery was that in Chili the lead generally turned into silver lodes in depth.

Capt. KITTO said that galena lodes yielded a good percentage of silver.

Mr. TREMAYNE read a letter from Mr. Watt, the present superintendent, referring to the discovery of the lead lode. It stated that it promised to be of some additional profit, for, besides being rich for lead, it contained about 32 ozs. of silver per ton.

Capt. KITTO, in reply to a question, said he saw no reason whatever why 60,000 or 10,000 quintals of ore per month should not be raised by the aid of machinery.

Mr. KENDALL mentioned that just before the shaft ran together Mr. Waters was about to bring out the mine in London for 30,000. The shaft having run together prevented the company being formed. If the mine was not good at the bottom it is not likely Mr. Waters would have expended such a large sum in sinking the new shaft. He anticipated the increase of water indicated that they were approaching the vein.

Mr. DOWNER asked what amount of ore would be raised before the additional machinery was erected? — Mr. WILSON said 40,000, 50,000, or 10,000 quintals per month—quite as much as they wanted. They merely depended upon the new machinery for a more rapid and economic development of the mine. — Mr. MICHELL said the profits would then, no doubt, be trebled.

A special vote of thanks was passed to Capt. Kitto and Mr. Phillips for the kind and satisfactory explanations they had afforded as to the position and prospects of the property, and also to Mr. Wilson for having afforded the opportunity of eliciting such important and exclusive information from reliable sources.

A vote of thanks to the Chairman terminated the proceedings.

PACIFIC MINING COMPANY.

The annual general meeting of shareholders was held at the offices, Austinfriars, on Monday,

Mr. J. IRVING COURTEEN in the chair.

Mr. W. J. LAVINGTON (the secretary) read the notice convening the meeting.

The report of the directors and balance-sheet (which appeared in last week's Journal) was taken as read.

The CHAIRMAN contrasted their present position with what it was this time last year. As stated in the report, at that time the levels were under water, the machinery and pumps broken or in bad order, with no ore ground laid open, and the Mettacom Mill closed and out of repair. A large expenditure of money and time was, therefore, necessary before Capt. Pridaux could even begin the explorations since carried out by him. Capt. Pridaux had hoped to have found the mine in no worse condition than when he left it, but many weeks elapsed before he was even able to get into the mine, having had to send for fresh machinery and pumps; and its present favourable position was fully described in the letters they had just received. Whereas this time last year there was no ore in sight, nor was there a ton being raised, they were now raising 7800. worth per week, of which about 2600. worth was from tribute. The mine contained a large number of ledges. Captain Pridaux stated there were 15, but during the past twelve months three others had been discovered—so that as one fell off another improved in value. One was producing ore of the value of 2000 lbs. per ton. The ledges were found shallow, and very rich, and the reserves were now estimated at 12,000. The Mettacom Mill, situated about four miles from Austin, was one of the most perfect in the State. Mr. Ross Brown had devoted a special chapter to its development in his official report to the United States Government, and spoke of it as one of the most perfect structures he had met with in Nevada. It has 10 stamps, with a crushing capacity equal to 12 or 15 tons per day, and it had been provided, at a considerable expense, with one of White's furnaces, of a 15-ton per day capacity. That furnace was working uncommonly well, but in amalgamating capacity there was at present a deficiency; therefore, it would be necessary to increase the number of barrels so as to bring up the amalgamating equal to the crushing and roasting capacity. The mill will be able to crush something like 300 tons per month, of which 120 tons would be provided by their own mine, the remainder being customers' ores, which would yield a satisfactory profit. It was not the intention of the board to remove the mill into Austin, although the question might subsequently arise whether it would be advisable to erect another mill at Empire. As to the Union Hill Mine, there was no doubt that should never have been closed, although its last month's working resulted in a loss; but any mine worked as that was could not have resulted in anything but a loss. They were informed that Union Hill was just as good as the others, and as its cost had weighted the Pacific Company with a certain amount of capital they did feel that something should be done with the mine, and if some arrangement could be made by which the capital could be reduced to that extent they would do uncommonly well. The directors did not think it wise to raise further capital for the purpose, but that an arrangement should be made for the formation of a separate company. Advertising to the balance-sheet, he pointed out that a considerable portion of the expenditure had been incurred before the appointment of the present board. By the accounts to hand this morning, and from telegrams received, it would seem that up to the end of November there was a debit due to their bankers in Austin of 17821, which was increased to 2900. by the December working, which was very heavy; but between the end of December and Feb. 14—the date of the telegram—that debit had been reduced to 1100., a most gratifying result. December had been a fearful month for mines in that country, and there seemed reason to believe that had the works progressed as usual during the month the entire indebtedness would have been wiped off. The Mettacom Mill had been entirely overhauled and supplied throughout with materials. A portion of the account with Mr. H. Sewell had been settled—some expenses were incurred in the bonding of some other properties which they were desirous of possessing, for the sake of putting out a sch-mo for the resuscitation of the Union Hill Mine. They only authorised Mr. Sewell to incur a certain outlay, but having exceeded his instructions they declined to admit the additional expenditure incurred. It was a matter of regret to his colleagues and himself that Colonel Sturt and Mr. Cope had resigned their seats at the board, for both those gentlemen had done admirable service for the company. He then moved that the report and balance-sheet be received and adopted.

Mr. F. BENNETT (director) seconded the resolution, and said that as the Chairman had explained all details so clearly to the meeting he should content himself by a very few observations as to the Mettacom Mill and the new revolving calcining-furnace, and review the satisfactory returns of the work done. In his own experience he was convinced that the removal from a mill of machinery planned, laid out, and erected for such mill was always attended with so much risk, that he knew that the late Mr. Waters had the highest opinion of it. The new shaft was in the right position for the two lodes. Capt. KITTO said he could not support the proposal to remove the Mettacom

Mill, but would prefer that when the company's mine produced a sufficient quantity of ore the more advisable course would be to consider the question of completing the fitting up of the Empire Mill. The Mettacom Mill, from reliable information he had received, was so situated that hereafter it might be kept in constant and profitable work from customs ores, without depending on the Lauder Hill Mines for any supply. As to the calcining-furnaces at Mettacom Mill, the four old reverberatory-furnaces had been most wisely removed. These furnaces were costly in working, and, in competition with the

new principle of calcination and chlorination employed by the Manhattan Company, at Au-thu, would have been perfectly valueless. The company, he considered, was to be congratulated on the intelligence shown by their then superintendent in selecting the new principle of calcination and chlorination by a cylindrical revolving-furnace. The process of calcination in a furnace of this description was not new in this country. It was perfectly acquainted with the plan of roasting pyrites in a cylindrical revolving-furnace, adopted by the alkali works, and he had himself designed a similar plan for calcining zinc ores. His opinion throughout had been that the new revolving furnace at the Mettacom Mill would prove a great success as an economical and perfect mode of working silver ores. The daily results of calcination and chlorination, furnished to the directors by Mr. Howell, the present mill superintendent, were most satisfactory, and fully confirmed that opinion in every respect. He had been informed by a gentleman who had visited the Mettacom Mill in November last that Mr. Howell had improved the mechanical working, so as to regulate the working according to the character of the ore under process. The ore treated appeared to have been in this case very refractory, yet the chlorination returns proved the system had succeeded equitably with all ores in a most perfect and scientific manner. The report received to-day, and which had been read to the shareholders, gave some interesting particulars relative to the Mettacom Mill, which he would recapitulate. The stamps, 10 in number, were capable of crushing 12 tons to a fine 10 ft. diameter, to pass through a No. 40 screen—that is 161 meshes to the square inch. The revolving-furnace was capable of working 15 tons of ore daily, whereas the amalgamating barrels could only treat 6 tons daily. He had gone through the actual returns of work done by the mill. It appeared from these returns that during November the work was necessarily of a preliminary and experimental kind, but that from Dec. 1 to Jan. 7, 27 days, the total quantity of ore treated amounted to 240,558 lbs., equivalent to 130 tons 583 lbs., or an average of 4 tons 1631 lbs. daily; from Jan. 7 to 14, five days' working, 22,650 lbs., equal to 28 tons 650 lbs., or an average of 5 tons 320 lbs. daily; from Jan. 15 to 22, seven days' working, 79,725 lbs., equal to 59 tons 1725 lbs., or an average of 5 tons 1915 lbs. daily. The average daily work of the entire period was 5 tons 74 lbs., not one-half of the capacity of the stamps, about one-third of the capacity of the furnace, and not equal by nearly 1 ton to the capacity of the amalgamating barrels. The company's ore worked from Jan. 1 to 7 was ordinary, not on the tributary 101 tons 58 lbs., of an average value of \$68 per ton, or a total money value of 14091.8s.; the company's tributaries' ore was 10 tons 701 lbs., of an average value of \$332 per ton, or a total money value of 10127.12s.; the customs ore was 10 tons 1871 lbs., of which 6 tons return had been received of the profit made by the company, but which yielded a gross value of 6751.12s. There was also stated to be realised from the pulp left after the reduction account for November and to end of December value equivalent to 1891.18s. These several amounts stated, to which must be added the silver returned in November of the value of 997.9s., represents a total production of 44561, and in ounces of silver 28,591. To arrive at the gross profit for twenty-seven days he took simply the 1416.8s., and added to it 4561.12s., being the calculated profit on the tributaries' ore,

of tin that we commenced to drive on, after letting down water by the adit level; there is now a good lode gone down in the bottom of the level which cannot be wrought on without steam-power."

LOVELL CONSOLS.—At a general meeting of the shareholders, on Feb. 29 (Mr. William Carpenter in the chair), the accounts for the four months ending January showed a credit balance of £751. 10s. 6d. A call of 1s. per share was made. Capt. John Nancarrow says—"Our operations are at present suspended, and nothing can be done until the water abates, which it is hoped may take place shortly."

LOVELL.—At a general meeting of shareholders, on Feb. 29 (Mr. William Carpenter in the chair), the accounts for four months ending January showed a credit balance of £751. 10s. 6d. Capt. John Nancarrow says—"We have sold since the last meeting 10 tons 12 cwt. 5 lbs. of tin, realising £851. 5s. 5d., and if our present prospects continue we shall do better next time. The stamps of 16 heads are as good as can be met with; the buddies, frames, and other dressing apparatus are all in good order, and working well, and very little more outlay will be required in this department for a considerable time. There are altogether 41 persons employed."

NORTH JANE.—At a general meeting of shareholders, on Feb. 29 (Mr. William Carpenter in the chair), the accounts for three months ending December showed a credit balance of £241. 18s. 6d. A call of 8s. per share was made. It was resolved that the engine be removed from its present position to Goss's shaft, and that the committee of management consist of Messrs. Kettlewell, Woolley, Matheson, and Carpenter for the next three months.

VRON UNITED SILVER-LEAD MINING COMPANY.—At the extraordinary general meeting, on Wednesday, the issue of 300,000 15 per cent. preference shares was confirmed, and the issue extended to 3695, in order to complete the present issue of 30,000 shares.

WHEAL VINCENT (Altarnum).—A large and influential meeting of shareholders was held at Golding's Hotel, Callington, presided over by Mr. Lawry, of St. Dominick. It was resolved that a call of 4s. per share should be made on 5000 shares; that the office of Mr. Gregory, St. Vincent-street, Glasgow, should be appointed officer of reference; that the following gentlemen be the committee:—Messrs. Lawry, A. Hicks, Edgecumbe, Thomas, and Deble, and that they appoint a managing agent. The meeting accorded their best thanks to the Chairman, Mr. Lawry; it is intended to have the engine erected and the mine in good working order before next June.

SPEARIN MOOR MINE.—At a meeting of adventurers, on March 2, the accounts for four months, ending Dec., showed a profit of 1000, reducing the debit balance to £42. 9s. 9d. Capts. James Bennetts and Charles Ellis say—"The sales of tin for the past four months have been much the same as we expected, and we calculate our returns for the ensuing four months will be about the usual quantity."

SOUTH WHEAL FRANCES.—At a meeting of adventurers, held at the mine on Monday (Mr. Robert R. Broad in the chair), the accounts for December and January showed a profit on the two months' working of £41. 7s. 5d., which, being added to the credit balance at last account of £811. 10s. 5d., showed a total credit of £872. 18s. 1d., from which £600, towards the law costs having been deducted, a credit of £177. 18s. 1d. remaining was carried to the next account. It was proposed by Mr. D. W. Bain, seconded by Mr. John Thomas, and carried unanimously—"That this meeting having heard from the committee of management the very satisfactory statement that at the law proceedings, so long maintained by the late adventurers in West Bassett against this mine, have at length ceased, it is resolved that the best thanks of the adventurers be and are hereby tendered to the Chairman and his colleagues for the persevering, arduous, and successful efforts rendered by them for such a series of years in defence and protection of their co-adventurers' interests; and they further approve and confirm the compromise made by them in regard to the costs to be paid by Mr. Bain, and also those to be paid by South Frances' adventurer, to their esteemed and respected solicitors, Messrs. Smith, Roberts, and Paul." Capts. William Pascoe and Joseph Prys say—"We feel greatly disappointed at the state of the accounts to-day, having anticipated at the last meeting a far greater result; it is, however, chiefly to be attributed to the advance in the price of labour and materials, and the increased consumption of coal, owing to the incessant rains which without intermission prevailed for the last two months."

[ADVERTISEMENTS.]

From Mr. JAMES CROFTS.—The Mining Market during the past month has been rather inactive, notwithstanding a substantial rise in tin. On Monday last the smelters announced an advance of 4d. per ton in this metal, and the tendency is for a further advance. It will be remembered that the writer in a previous letter indicated the probability of an early rise, and his views thereon have been fully borne out by subsequent events. There appears to be no fear of any important decline for years to come, for the consumption of the metal is enormous, and increases daily, whilst the production is comparatively limited. Copper remains firm. The late rise of 5d. per ton is most encouraging; and the continued advance must in a short time have a very marked effect upon stocks of lead, as usual, is firm. It will thus be seen that the metal markets are very favourable for a large business in the mining market. The writer is of opinion that this is imminent; and investors and speculators would, therefore, do well to avail themselves of the opportunities now off'ered to operate.

A large business has been done in PENNERLEY shares, which during the week advanced to 43s. to 47s., but a slight reaction has occurred, and they close 43s. to 45s. These shares should be bought; they are cheap at 5s. WEST TANKERVILLE shares have receded also; the present quotations (4 to 4½) are much below their real value. These two mines promise to take a great position amongst their neighbours in Shropshire.

In VAN CONSOLS several fluctuations have taken place, and the shares are flatter, at 3½ to 4; the highest price during the week has been 4½ to 4¾. The reports from the mine speak very encouragingly for future success. Amongst Corunian lead mines an improvement is rumoured from WEST CHIVERTON. The mine has been looking very well for some time past, and the writer recommends the shares at 15s. The quarterly meeting is due at the end of the present month, and a dividend may then be expected. The four-monthly meeting of NORTH CROFT has just been held, and the accounts showed a loss upon the working for that period of £35. 2s. 6d. The costs are charged to December, but credit for tin sales is taken to Feb. 28, the day before the meeting. The costs are, therefore, two months in arrear. As at the previous meeting a credit balance of £172. 13s. 7d. was carried forward, there is still a balance in favour of the mine, and this amounts to £172. 11s. 1d. The manner of rendering the accounts is all that could be desired, they being very voluminous, and including a cash statement. The report is not very encouraging for an early resumption of dividends. The ground at present being taken away does not admit any promise to make profits without some improvement, but discoveries may be made, as there is a large run of kidwyl and copper ground before the 220 west; and the 208 west, where they have over 20 fathoms to the boundary, presents a very good appearance.

From Mr. ALFRED E. COOKE (76, Old Broad-street, London):—The month of March has commenced with a very good business doing in the leading mines of the market. By referring to my previous articles it will be found that I anticipated a rise in tin, and consequent demand for shares in mines producing that metal. During the past week has had an important advance, and this has had the effect of giving a fresh impetus to business. TIN-CROFT, SOUTH CONDUKBROW, WEST BASSET, and other leading mines have taken of the rise. There are many tin mines that may now be selected for investment or speculation, and which may be bought with great chances of realising profit. WEST WHEAL LUCY has just been brought before the notice of the public; the mine is in an excellent situation, and at present price, 3½ to 3¾, the shares are a cheap speculation. A few months ago the shares in WHEAL LUCY (under same management) were 10s., now they are 11s. I think that EAST GRANVILL E. at present depressed price, 2 to 2½, should not be lost sight of. The late heavy rain has greatly interfered with operations, and depressed shares, but under more favourable weather doubtless the recovery from the extra depression in prices will be rapid. Those who followed my advice and purchased PENNERLEY'S at 4 to 4½, have had an opportunity of securing a fair profit by selling at 47s. They have indeed declined again, but it teaches a lesson to take first profits. The shares should be bought at the reduced price, as they will ultimately be at a much higher figure. The manager's report presented at the general meeting to the shareholders in ROMAN GRAVELS can only be viewed as highly satisfactory. This is a proved mine, and no safer investment could be found. It must not be forgotten that WEST TANKERVILLE is under the same able manager, and possesses many of the same profitable lodes as Roman Gravels. Shares should be bought at 4 to 4½.

CORNISH PUMPING ENGINES.—The number of pumping-engines reported for Jan. is 20. They have consumed 2557 tons of coal, and lifted 22,900,000 tons of water 10 fms. high. The average duty of the whole is, therefore, 54,100,000 lbs., lifted 1 ft. high, by the consumption of 112 lbs. of coal. The following engines have exceeded the average duty:—

Cargou Mines—Michell's 72 in.		Millions	61 0
ditto	ditto	7s. 5	7s. 5
Dolcoath	ditto	Willyam's 70 in.	80 8
Providence Mines	40 in.		56 3
South Wheal Frances	Marriott's	75 in.	57 1
West Chiverton	new 80 in.		63 2
Wheal Seton	Tilly's 70 in.		60 2
ditto	Tregoning's 70 in.		61 8
			68 9

PRICES OF MATERIALS.

As charged at SPEARIN MOOR MINE during the following months:—	Sept.	Oct.	Nov.	Dec.
Hoop Iron .....per cwt. 13s. 6d.	—	—	—	—
6 in. patent nails.....	19 0	—	—	—
5 in. ditto	—	19s. 0d.	—	—
4 in. ditto	—	20 0	—	—
Sheet lead	28 0	—	—	—
Leather	per lb.	—	1 6	—
Norway timber	per foot 0 9	8d. 9d.	—	—
Quebec yellow pine	—	18. 8d.	—	—
Coals M. C. ....per ton 12 9	13 9	13 0	13s. 3d.	—
Best candles*	per doz. 5 6	—	6 0	—
Tallow	per cwt. 47 0	—	—	—
Grease	12 0	—	12 0	—
Engine oil	per gal. 4 6	—	—	—
Powder	per 100 lbs. 43 0	—	—	42 0
Safety fuse	per coil	—	0 4	42 0

* Registered red thick wick, burn 3½ to 4 hours.

† Delivered free of carriage.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending March 2 were 10,885, 2s. 3d.

LLANARMON LEAD MINE.

In order to keep the shareholders well and certainly informed on the progress and position of the Llanarmon, the directors every now and then have it inspected by competent and reliable surveyors, who are quite independent of the company and of the mine. Such an inspection has just been made by Mr. John Pryor, of Mold, who is intimately acquainted with the character of the ground throughout the district, and who was formerly interested in the working of the set— the Old Nant—immediately west of Llanarmon (the same lodes running throughout), and of which, some time since, he said, "I have had to do with it for the last 20 years, and can say that it has probably been the richest and most productive lead mine in Denbighshire. The returns have been equalised by only one mine in the Principality—viz., the 'Minera,' the adjoining mine. They are both on precisely the same bearing measure, the matrix of both lodes is of the same nature, and I have not the least doubt that the Llanarmon Mines will prove equally productive. I have made a careful inspection, I have long since been acquainted with them, and am consequently able to speak with greater confidence as to their value than I otherwise could. The main lode is one of the most clearly defined I have ever seen, and in this respect it bears a great resemblance to the great 'Minera' and Maes-y-Safn Mines, and several of the other most productive lodes in North Wales. Your set is very extensive, and has yielded immense quantities of lead, and I have every confidence that it will do so productively in the future as in the past."

"I find that, at present, your main operations are directed to the eastern part of the set, where a new engine-shaft has been sunk to a depth of 66 fms. (upon which you have a 24-inch cylinder engine erected, with boilers, pumping, and winding gear, all connected, and working a 10-inch lift of pump), divided into three lengths—viz., a plunger-lift, equal 30 fms.; two drawing-lifts, one equal 28 fms., and the other equal 16 fms., all in admirable working order) upon the course of the main lode, at a point where the flat and the lode were expected to form a junction. The shaft has been sunk in some heavy and most dangerous ground, requiring great skill and attention to accomplish the task. It is sunk about 10 fms. in the limestone below the millstone grit. At this point a cross-cut has been driven south, along a joint in the lime and beds of shale, a distance of about 25 fms.; but, finding the ground continue hard and unproductive, it was considered prudent for the time to suspend operations at this point and commence to drive north of the engine-shaft. Having driven in this direction about 10½ fms. in hard ground, the stratum made a sudden change; instead of the measures meeting you, as before, they dip from you, and immediately intersect a splendid east and west joint, composed of spar, clay, and chert, of a very promising character, and running precisely the same course as the 65 fm. set in Mary Ann shaft (the cast shaft, not used just now), which produced such large quantities of ore. They have driven along this vein west about 4 fms.; and, judging from the matrix of the driving, I am firmly convinced that it is the flat overhanging the main lode, and forming a kind of 'hopper,' in a few fathoms sinking on this joint the lode and the flat will form a junction.

"This was the case at the Gwyn-y-Mynydd Old Mines, which produced thousands of tons of lead ore, and I have every confidence that if you sink upon this flat, were first intersected, you will be equally successful. The present level is too shallow, and the ground is very unstratified, and too near the crop of the limestone. This cross-cut is extended 7½ fms. beyond the 'flat' or vein, and the ground is quite changed in character; therefore, I should by no means recommend you extending it any further. My recommendation as to your operations is, that you stop the driving north, and put the men to drive east and west in the 'flat'; and I would also strongly recommend you to put a set of men to do as I have stated above—namely, to sink below the cross-cut in this joint. I think you will get down without much water, and the ground will be soft and cheap to sink; and when once the ground becomes settled in the lode you will have a successful and lasting mine."

JOHN PRYOR.

Mr. WALTER EDY's report, made some six months since, was of a most satisfactory description as to the character of what he calls "this well known and rich mine," which is in one of the most productive districts for lead in the Principality. It comprises the celebrated mines known as Belgrave, Maes-y-Safn, Bryn Gwyn, Hendre-uchas, Mount Pleasant, Gwern-y-Mynydd, Cathole, and one or two others, all adjoining, and which returned very large profits, when lead was as low as £1 or £1 per ton, it now being £12 or £14. It is in the immediate neighbourhood, too, of Pant Ddu, the Old Jamaica, Penll-y-Wheel, and Minera Mines, the last-mentioned of which has made profits of £18,000 per quarter upon a capital of £45,000, and has paid dividends amounting to £5,000 per quarter, with a present market value of £50,000, its £2 shares being at £58. The Old Nant Mine, adjoining the Llanarmon, and the great lode of which runs through it, and to which they are driving, raised lead to the value of more than £2,500,000, and gave profits of £1,000,000 and upwards, and the old miners in the neighbourhood are all impressed with a conviction that the Llanarmon is as rich as that was.

The junction of the flat and the large lode of which Mr. Pryor speaks, is an unlooked-for event, which promises large results, for, as he observes, wherever such a junction takes place the deposit of lead is something more or less.

In a letter written after his report, Mr. Pryor says:—"Had I known what I now do I should have very much preferred not reporting for a month or so, as to enable you to have given the new east and west joints a little further trial. I am very strongly impressed that it is the flat and the lode forming a junction with each other. It is a positive fact that wherever the lode and flat form a junction with each other they have always produced large quantities of ore. We have several instances of this in the neighbourhood, and I have very little doubt that if you were few fathoms deeper the ground would become more settled, and you would have a great success."

An evidently practical man, with a shrewd judgment and a quick eye, who has been travelling through Wales on a tour of inspection, and who is wholly unknown to the directors or others connected with the mine, thus writes, about a fortnight since:—

"At Llanarmon a splendid lode east and west has been met with in the 66, about 3 ft. wide. Owing to an accident to the machinery, operations have been suspended for a few days. Work, however, it is expected, will be resumed before the close of the week, when the lodes will be operated upon with increased vigour. The mine has recently been inspected by two well-known gentlemen, Mr. Pryor and Mr. Eddy, who have reported most favourably of the prospects of the property. The engine-power has been found to be sufficiently ample for all purposes, and everything is now looking very promising."

The lode here spoken of is independent of the two great and proved lodes, towards which they are now cross-cutting.

It is gratifying to find such a concurrence of judgment as to the present and future as all the reports exhibit; because, unless some marvellous change as is almost, if not quite, unknown in mining—should occur, the Llanarmon will prove to be one of the richest lead mines in North Wales.

The statements made, it will be seen, all have reference to the eastern part of the set only; but it should be remembered that there is a long run of ore ground, proved to be rich in metal and partly laid open, further west—a great mine in itself, and which remains to be worked when the sinking and driving on the flat and lode in the eastern part have been somewhat further carried on, and the junction of the flat and the lode reached; so that, after awhile, the shareholders will have two rich mines simultaneously working. The piece of ground east of the old shaft, and known as Mynydd Dhu, or Black Mountain, is, comparatively speaking, virgin ground; and all old miners in the neighbourhood are sanguine as to its richness, and there is no doubt that vast deposits of lead will be met with by the intersections from the new shaft east. Only a few years since that short piece of ground back to the west of the new shaft about 300 fms., worked by a local company, and being not much over 100 fms. in length, yielded from 100 to 200 tons of rich lead ore per month, paying a profit to the proprietors of upwards of £18,000 per annum for many years. Then, again, the east shaft, which has been sunk 92 fms., and has three levels driven eastward, has a run of ground of a rich character between the 62 and 92 fathom level, being a continuation of the ground which afforded such enormous profits in the Old Nant Mine.

About the prospects of the Llanarmon, therefore, there can be no doubt.

The mines, with the machinery and plant, have now a market value of £6,000, the probability is that within 12 months—perhaps six months—they will have a market value of £100,000, or more, and return the shareholders from £2 to £5 per cent. upon their investment.

The company is incorporated with limited liability, with a capital of £20,000, in shares of £2 each, fully paid up.

Messrs. BARTLETT and CHAPMAN recommend the purchase of these shares at the present price, believing they will advance very considerably in a short time. They are fully paid, leave no liability, and are exposed to no "calls," as the company is incorporated with "limited liability."

MESSRS. CAMERON AND CO., SHAREBROKERS, CHESTER, having a thorough knowledge of the Lead Mining Districts in Wales, are ENABLED TO FURNISH THE BEST AND MOST RELIABLE INFORMATION ON all WELSH LEAD MINES.

Messrs. CAMERON and Co. have FOR SALE, at £1 each, some fully paid-up shares (share warrant to bearer) in a very valuable progressive LEAD MINE, which they recommend to investors for immediate purchase. The geological position of the mine is all that can be desired, being situated in the midst of some of the most profitable lead mines in Wales. Early application is invited, as there is little doubt it will prove a highly profitable investment. Particulars forwarded on application.

OFFICES: BRIDGE STREET CHAMBERS, CHESTER.

MESSRS. LISCOMBE AND CO., 39, SOUTH CASTLE STREET, LIVERPOOL. Beg to inform their CLIENTS and the PUBLIC that they are PREPARED to do BUSINESS in ALL CLASSES OF MINING SHARES—English, Foreign, and Colonial—at the closest market prices.

A Mining Engineer of great experience having recently joined the firm, they are in

stores in this level yield 10 tons, at 15 dwt.; some of this ore will come to the mill this month. The end south in zero level yields 6 tons, at 15 dwt. Nothing new in other parts of the mine not mentioned.

[For remainder of Foreign Mines see to-day's Supplement.]

MINING NOTABILIA.

[EXTRACTS FROM OUR MINING CORRESPONDENCE.]

CARGOL MINE sold, on March 1, 80 tons of lead, realising 14332. The 100 is much improved, and the new lode in adit level (35 fms. from surface) continues to produce lead ore.

VAN CONSOLS.—The reports of the manager are most satisfactory. The lode at the 25 is still looking well, worth fully 40¢ per fathom in the end; and the stores in the back 25 per fathom. Capt. Roach also states that he will shortly be sinking on a fine course of lead ore.

WHEAL MARY (St. Dennis).—It is reported that the lode which was cut extraordinarily rich for tin a few weeks since has further improved 1¢ depth; the discovery appears to be of great value, and is attracting attention.

CASTLE AN DINAS.—The eastern stopes has greatly improved in value within the past few days.

WEST ESGAIR LLE.—**Eastern Mine**: The improvement in the engine-shaft still continues, and the lode is increasing in value as it is opened on. They have now a rich pile of ore at surface from this part of the mine, and large samplings of ore will commence shortly.—**Western Mine**: Operations are progressing satisfactorily here, and we are busy getting a parcel of ore ready for market. We hope to commence sales here at the end of this month.

ST. AGNES CONSOLS.—It is now evident that the new lode discovered in this mine is the Wheal Pink or Penhale lode, which returned profits to the extent of 40,000£ above adit in the adjoining mine. Capt. James Pope, late of Bassett, reports that he considers this discovery of the greatest importance. There can be no doubt that it adds considerably to the value of the mine. Immediate arrangements are contemplated for putting up stamping power and laying out tin dressing-floors, as nothing appears more certain than that they will be required at an early date. The following agents have reported, upon the mine:—Capt. James Evans, of Nance; Capt. James Pope, late of Bassett; Capt. Joseph Vivian, of South Condurrow; Capt. John Gilbert, of West Bassett; Capt. George Tremayne, of Wheal Rose; and Capt. John Nancarrow, of Camborne.

WHEAL LUCY.—The operations here are progressing most satisfactorily. The engine-shaft is sunk by the side of the lode in a congenital stratum. On the Carbona and south lode rich ground is being opened. A fair sample from the latter produced 7 fms. 14 lbs of black tin to the ton of stuff. The stamping machinery is being erected, and in the course of a few weeks regular and progressively increasing returns of tin may be looked for. The mine is opening out far beyond the most sanguine expectations, and it is the prevailing opinion in the neighbourhood it will be one of the greatest success of the year.

ST. IVES CONSOLS.—Two men working in the 177 fathoms level on the caunter lode, sent to grass the day following the account from 2 to 3 tons of tin, the produce as fortieth's work, which will give them not less than 50¢ per man. This lode, some years since, was the mainstay of the mine, and should the present discovery continue it will materially affect the value of shares. The result of the last quarter's working showed a profit of 552£. A few adventurers expressed dissatisfaction with the management, but Mr. R. R. Mitchell's proposition, expressing entire confidence in it, was carried by 15 to 5.

ADVANTAGE OF MINING.—At the Willyams' Testimonial meeting on Thursday, Mr. B. Matthews said he wished sincerely Crewe and Wheal Abraham might prove a great blessing to the whole neighbourhood. He spoke of a small mine with which he was connected, West Wheal Seton, covering about 12 acres of ground, from which from 700,000, to 800,000£ of property and 250,000£ profit were made. He gave this as an instance of the wealth that was produced to the country, and the property that was brought into existence by mines which had not been in existence before. Mining also greatly assisted agriculture, and land was always worth more in the neighbourhood of mines.

SNOWDRIFT.—Some time since a company was formed for working this property; it is now stated that the directors have completed the purchase of the mine, and are preparing to commence its active development.

CWY ELAN MINE is surrounded by Cwmystwyth, Llanbister, and Van Mines, and under good management.

WEST ESGAIR LLE.—The new improvement in Hamilton's shaft still maintains its size and value.

It is stated that extensive works for streaming the tin deposits in the Loo Valley, below Helston, will shortly be commenced. Tin in large quantities is believed to be obtainable in the strata which underlie the mud and sand. To facilitate the operations it will be necessary to open an old adit, which connects the Loo Pool with the sea, and it is reported that liberty to do this has been obtained at a moderate rent from Mr. J. J. Rogers, of Penrose. The high price and future prospects of the tin market it is believed will render the enterprise most remunerative. It may be mentioned that the mineral rights belong to the Duchy of Cornwall, operations being carried on from the eastern side of the valley.

CHIVERTON VALLEY.—Since Mr. Thos. Pryor purchased this mine and sets the driving of the 65 towards Chiverton Moor has been resumed, and the result has been that nearly 10 tons of lead has already been raised. This valuable discovery is in the piece of ground that the dispute was about between Chiverton Valley and Chiverton Moor some years since.

WHEAL BULLER sold, on Thursday, 24 tons (computed) of ore, at 11¢ per ton. This ore will weigh off about 400£, and has all been raised from the new ground during the last two months. Much larger samplings are anticipated from this part of the mine.

WHEAL PEEVOR.—Operations here have commenced in earnest, and it is believed that on or about Midsummer next the mine will be in fork to the bottom, or the 50 fm. level. The success of the promoters here has already induced some highly intelligent gentlemen to take up the adjoining mine of Great North Downs. This will, no doubt, be a capital thing for the Wheal Pevor.

THE ST. VINCENT LAND, MINING, AND SMELTING COMPANY have commenced operations on a section of their mine which adjoins the East Cornwall St. Vincent on the west, and already several tons of very rich ore have been found, which, assayed by Mr. J. L. Jenkins, of Callington, gave more than 100 ozs. of silver to the ton. It is anticipated that the prospectus will be issued next week.

THE EAST CORNWALL ST. VINCENT MINES are smelting a parcel of silver ore, which is 12th part pure silver, six bars of which have been already sent to the office.

FLORENCE TIN MINE (Perranuthne).—I am glad to inform you that Florence Mine is much improved. A north and south lode has crossed the lode we are driving on at the 20 from surface at the adit, also at the 10 and 20 under adit, and it is a very good lode at each of these four places, yielding slabs and rocks of tin, and worth 25¢ per fathom at least; it is in some places from 3 to 4 ft. wide. It has also greatly improved our other lode, and I have no doubt I will have the same effect upon all the other lodes it crosses. The Millpool Standard lode, at the bottom of the mine, has also greatly improved, and is a good lode. We have a rich mine. At Walter's new engine-shaft we are driving south at 20 fathoms from surface, and expect to cut a lode in a few days; there are two or three close at hand. Although the lode below the 20, under adit, had very much improved, and was improving every inch of ground driven, we do not intend to continue driving on it until drier weather sets in, and the water is less powerful, or until our large engine is erected and in action. We do not want the tin: we have many places where we can break as much tin as we require at present. Our calculator will be ready to work next week. It will have plenty of tin to calcine. It is a first-rate one, and will do credit to the mine. The mine is looking very well indeed, taking into account the short time we have been working—4¢, only six months on the 15th Inst. I consider that after we have been working two or three years Florence will class with the first and richest tin and copper mines in Cornwall.

WATSON BROTHERS' MINING CIRCULAR.

MESSRS. WATSON BROTHERS return their most sincere thanks for the great patronage bestowed and confidence reposed in their firm for nearly 30 years, and to assure their friends and clients it will be their earnest endeavour to merit a continuance of both.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present, and, from the lengthened experience of Messrs. WATSON BROTHERS, they are eminently qualified to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON BROTHERS are daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

WATSON BROTHERS, MINING AGENTS, STOCK AND SHAREDEALERS, &c., 1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

SATURDAY.—Active demand for shares in tin mines, and stock very short. Carn Brea, 140 to 148; Cook's Kitchen, 46 to 48; Tincroft, 64 to 68; Lucy, 11 to 12; West Lucy, 3 to 4; West Frances, 28 to 30; North Rosewarne, 7 to 7½; New Rosewarne, 16 to 17; Wheal Kitty (St. Agnes), 12½ to 13; Eberhardt, 9 to 9½; Utah, 4½ to 4¾.

MONDAY.—Market moderately active for tin shares. Lucy, West Lucy, Old Bottle Hill, Treleigh Wood, West Frances, Carn Brea, Bog, and Penmerly chiefly dealt in. Lucy, 11 to 12; West Lucy, 3 to 4; Old Bottle Hill, 10 to 12; Treleigh Wood, 11 to 12; Tincroft, 64 to 66; West Frances, 29 to 31; Carn Brea, 142½ to 147½; Bog, 2½ to 3½; Penmerly, 4½ to 4¾; Devon Consols, 110 to 115; East Lovell, 15 to 16; Great Vor, 8½ to 9; Roman Gravels, 18 to 18½; Tinnerville, 18½ to 19; Van Consols, 4½ to 4¾; Eberhardt, 9 to 10; Utah, 4½ to 4¾.

TUESDAY.—Market active for Tincroft, Carn Brea, Old Bottle Hill, West Lucy, Wheal Lucy, Treleigh Wood, Utah, Cook's Kitchen, and West Frances. Tin-

croft, 65 to 70; Carn Brea, 140 to 148; Old Bottle Hill, 12 to 14; West Lucy, 3½ to 4; Wheal Lucy, 11 to 13; Treleigh Wood, 29 to 31; Utah, 8 to 8½; Cook's Kitchen, 47 to 49; West Frances, 31 to 33; East Bassett, 23½ to 25; Gawton, 5½ to 6; New Lovell, 2½ to 3½; Great Vor, 14½ to 15½; Van Consols, 4 to 4½; Bog, 2½ to 3; Eberhardt, 10 to 11.

WEDNESDAY.—Tincroft, Carn Brea, Old Bottle Hill, Lucy, West Lucy, Cook's Kitchen, and East Lovell again in demand, and prices firm. Penmerly, Van Consols, and Illogan Down weaker. Tincroft, 69 to 70; Carn Brea, 142½ to 147½; Old Bottle Hill, 12 to 14; Wheal Lucy, 11 to 13; West Lucy, 3½ to 4; Cook's Kitchen, 47 to 49; East Lovell, 15½ to 16½; Penmerly, 4½ to 4¾; Van Consols, 3½ to 4½; Illogan Down, 3½ to 4½; Bog, 2½ to 3; Great Vor, 8½ to 9; South Roman Gravels, 2½ to 2½; Treleigh Wood, 9 to 11; West Frances, 3½ to 4½; West Maria, 25 to 30; East Bassett, 14 to 15; Eberhardt and Aurora, 10 to 11; Utah, 8½ to 9½.

THURSDAY.—Market again active. East Lovell advanced to 19, buyers. Van Consols, Lucy, Bog, Tankerville, and South Condurrow firm, at quotations. East Lovell, 19 to 21; Van Consols, 3½ to 4½; Wheal Lucy, 11 to 13; Bog, 2½ to 3; Tankerville, 18½ to 19; South Condurrow, 6 to 6½; Great North Laxey, 28 to 27½; New Rosewarne, 16 to 17; North Rosewarne, 7 to 7½; Old Bottle Hill, 12 to 14; South Frances, 58 to 60; West Bassett, 15 to 16; West Lucy, 3½ to 4; South Roman Gravels, 2½ to 2½; Tincroft, 69 to 70; West Frances, 3½ to 4½; West Maria, 25 to 30; West Bassett, 14 to 15; Eberhardt and Aurora, 10 to 11; Utah, 8½ to 9½.

FRIDAY.—Market again active. East Lovell advanced to 19, buyers. Van Consols, Lucy, Bog, Tankerville, and South Condurrow firm, at quotations. East Lovell, 19 to 21; Van Consols, 3½ to 4½; Wheal Lucy, 11 to 13; Bog, 2½ to 3; Tankerville, 18½ to 19; South Condurrow, 6 to 6½; Great North Laxey, 28 to 27½; New Rosewarne, 16 to 17; North Rosewarne, 7 to 7½; Old Bottle Hill, 12 to 14; South Frances, 58 to 60; West Bassett, 15 to 16; West Lucy, 3½ to 4; South Roman Gravels, 2½ to 2½; Tincroft, 69 to 70; West Frances, 3½ to 4½; West Maria, 25 to 30; West Bassett, 14 to 15; Eberhardt and Aurora, 10 to 11; Utah, 8½ to 9½.

COAL MINING IN AMERICA.

MAN AND MACHINE POWER IN THE PRODUCTION OF ANTHRACITE COAL.

The quantity of anthracite coal mined and sent to market in 1871 was 14,965,501 tons; estimated consumption in regions, 2,720,000 tons; total production in 1871, 17,685,501 tons. To produce this quantity of coal and transport it to market but few persons can form any idea of the magnitude of the investments, and the power of men and machinery required. We have, through the courtesy of the mining engineers and their clerks, been enabled to collect some full statistics connected with its production.

In the first place the investments in railroads and canals built expressly for the anthracite coal trade, with their equipments and investments in the coal regions, without the land, will foot up not less than \$400,000,000. The number of persons employed to mine the coal, and the number of engines, together with the aggregate horsepower required to lift it from the mines, prepare it for market, pump out the water, and ventilate the mines, is given below:—

Persons employed.	Steam-engines.	Horse-power.
Johnstown	14,285	518
Northumberland	3,151	75
Columbia	935	30
Dauphin	1,143	20
Luzerne, East	15,159	456
Luzerne, West	9,970	287
Lehigh Region	7,537	193
Total	52,227	1,503

* In Schuylkill there were about 4000 men in addition partly employed, and about 3500 were either idle or had left the Region in 1871. In Northumberland, Columbia, and Dauphin Counties, there were about 1500 men partly employed, and about 350 were idle or had left the Region.

† Also seven mine locomotives.

As about seven men are considered equal to the power of one horse, it would require 467,460 men to do the work of these engines. To this must also be added about 2000 mules used to haul the coal underground, and 18 or 20 mine locomotives, equal to about 14,000 men, making the men power required to mine and prepare the above quantity of coal for market equal to 553,687 persons.

The underground railroads for hauling the coal to the pit's mouth, and to carry the same to the breakers, in the anthracite regions will reach at least 1200 miles, and these railroads are not credited to Pennsylvania in the general railroad statistics.

—Miners' Journal (Pottsville, U.S.)

COAL FOR THE NAVY.

In the House of Commons on Tuesday, Mr. HUSSEY VIVIAN asked the First Lord of the Admiralty whether he could state shortly the result of the recent trial of mixed coal as compared with Welsh smokeless coal; and whether it is the intention of the Admiralty to return to the use of Welsh smokeless coal for Her Majesty's ships?

MR. GOSCHEN: I must demur to the use of the word "smokeless" as applied to Welsh coal, for it generates under some circumstances a certain amount of smoke. In the short time allowed for answering a question I cannot give the full results of the interesting experiments which have been made, but papers on the subject will shortly be in the hands of hon. members. Experiments have been made during the late season with the Indian tropheas Serapis, Crocodile, and Euphrates. They have been run against each other, some with mixed and others with Welsh coal, and the results are very remarkable. There has been a great saving, both in mixed and Welsh coal, as compared with any previous averages, thus showing that great care taken in these competitive trials has produced economy in both kinds. The aggregate consumption of mixed and Welsh coal on these three ships in the experimental voyage out and home was 3348 tons in 2184 hours, as compared with 3724 tons of mixed coal in 2552 hours, showing a difference of 376 tons in favour of Welsh coal, and of 132 hours in favour of mixed coal. The difference was thus not very great in either case, but the aggregate amount of coal used in these voyages showed a saving of 200 tons over the average of the previous voyage of these ships since 1867. As to the intention of the Admiralty, it has been shown that there is economy in the Welsh coal when its use is practicable, but mixed coal answers best in hot climates, as it keeps better than Welsh. Accordingly, all ships starting from Portsmouth and Plymouth will in future be supplied with Welsh coal only, and the same course will be taken as regards Gibraltar; the depot there will be supplied with Welsh coal only. The depot at Malta will be supplied with two thirds of Welsh coal and one third of mixed. At Port Said, Bombay, and other district stations the proportion of half Welsh and half North country coal will be maintained.

MINES REGULATION.—Petitions were presented to the House of Commons last week for alteration of law from the following collieries:—Seaton Delaval, Forest of Dean, Beath, Seaton Burn, Barradon, Bagnone, Whiston (two), Backworth, Mulgrave, Blaina, Park Lane and High Brook, Rhondda Valley, Cwmcarn, Waibron, Duhndister, Killinbeck, Blaifordland, Ffordd, Newtown, Atherton, Round House, Stainmore, The Park, Abercwmboi, Tintern, Wylam, Duhndister, Dundonald, Stubbins, Pate Merthyr, Townhill, Tillycrown, Swath Main, Tyswth Cwmda, Crump Meadow, Miskley, Clackmannan, Lund Hill, East Gawber, High Duffryn, Lleuwen Shewkin, Agnes, Silestone Fall, Darley, Merthyr, The Fence, Blandwell's Pemerton, Wimberry, Tylecote, Pittswood, Tilly Level, Abergavenny, Denon, Dasyr, Hindley Hall, Low Hall, Tankerville, Pemerton, Borthwick, Denon, Llwynllwyd, New Fawcet, Incil Hall, Pinstanley, Gilfach, Ffwrch-y-glo, Gilfachgoch, Gilfach, Swlley, Kingswood, Wigan, and Whiston Coal Company's, Wretton, Woodthorpe, Hindley, Holmes, Wombwell Main, and High Foyd, Tretton.

CHIMICALS AND MINERALS.—(Messrs. J. Berger Spence and Co., Manchester, March 6.)—The increased briskness of the Chemical Trade has been fully maintained, and makers have still difficulty in keeping pace with the demands for present requirements. There are large export orders on the market for the northern Baltic ports, and the United States is also buying freely. Caustic soda is scarce, and commands high prices. Soda ash has been in moderate request, and in some cases at a slight advance. Bicarbonate of soda firm, without alteration. Soda crystals in good request at about our last quotation. Nitrate of soda a moderate business has been doing, without material change in price; buyers do not, however, appear inclined to go into stock. From the West Coast last advices report an advance in price, with very few vessels offering. During 1871 the total shipments were 8,605,966 quintals, against 2,943,413 in 1870, showing an increase of shipments of 662,492 quintals during last year. Muriate of potash has slightly improved in feeling, but the business done has been small, and price is unaltered. Bleaching powder scarce, at full rates. Bichrome without further change. Prussiate of potash in good demand

Mining Correspondence.

BRITISH MINES.

ALL-T-Y-CRIB.—J. Clint, March 6: I have no alteration to report this week; everything is going on in a most satisfactory manner, and we are doing our utmost to complete the communication between the low adit and the engine-shaft. All the lodes are of the same value as when last reported on.

APPLETREYWICK.—T. Whiteman, March 6: The Wellington vein: The 25, east of engine-shaft, is very hard and wet, worth 10 cwt. of ore per fathom. The stopes in the east end above the 25 are worth 40 cwt. of ore per fathom, and have made regular returns. The 25, west of engine-shaft, is very hard, and worth 16 cwt. of ore per fathom; the vein at the end is 12 feet wide, nearly all spotted with ore. Nothing has been done in the 25 for a fortnight on account of the engine standing a week, but the water is now out again, and the men will at once resume work. In the 20 west the end is worth 12 cwt. of ore per fm., but is very hard and moves slowly. The stopes above are worth 12 cwt. of ore per fathom. The stopes from the 20 to the 25 are worth 12 cwt. of ore per fathom. Nothing doing in the new vein at present. The Village Level: We have now, I think, reached the end of the old men's workings, and have come at a flattening which, so far as we have proved, is 3 feet wide, and 8 in. thick, containing pieces of ore weighing from 20 to 50 lbs., besides small ore. The flattening seems to extend in width as we open it out, but we have made little progress, as it is very dangerous and requires timbering. I have no doubt, but a short time we shall have a rich mine here.

BEDFORD UNITED.—W. Phillips, March 7: The lode in the 115 fm. level east is 2 ft. wide, yielding good saving work. In this level west we are driving upon the north part of the lode. The lode in the 102 east is much improved, and is now worth from 4 to 5 tons of ore per fathom. The lode in the winze in this level is producing 4 tons of ore per fathom. We are driving by the side of the lode in the 105 west. The winze in this level is worth 3½ tons of ore per fathom. Driving by the side of the lode is continued in the 90 east. The stopes in the back and bottom of this level yield on an average 3½ tons of ore per fm. We are cross-cutting to the main part of the lode in the 90 west. The stopes in the bottom of this level, east and west of Curtis's wing, are producing on an average 3½ tons of ore per fathom. The rise in the back of this level is worth 3 to 4 tons of ore per fathom. The lode in the 75 east is 2 ft. wide, producing 3 tons of ore per fathom, and is looking more promising. We are still sinking by the side of the lode in the wing in the 75 fm. level west. The lode in the 62 east is 2 ft. wide, composed of spar, muddle, and good stones of ore. —South Lode: The lode in the 47 east is 2 ft. wide, composed of gossan, muddle, and a little black oxide of copper. We have commenced a rise in the back of this level, upon a very promising piece of lode, worth at present about 1 ton of good quality ore per fathom.

BLAEN CANLLAN.—John Evans, March 6: Settings for March: The 20, west of shaft, is re-set to two men, at 9s. per fathom; the lode in this end is without alteration, and is producing a little lead and muddle. The 20 east is re-set to four men, at 14s. per fathom; the end is strongly spotted with lead ore, and as this end is now very near to the point of perpendicular of No. 1 stope in the level above, I expect an improvement here soon. The No. 1 stope, in back of the 10 east, is re-set to four men, at 7s. per fathom; the average value of the lode is 20 cwt. per fathom. The No. 2 stope, in the back of the same level, is re-set to six men, at 5s. per fathom, and the lode is worth 25 cwt. per fm. The No. 1 stope, in back of adit east, is re-set to six men, at 5s. per fathom; the lode in this stope will produce from 20 to 25 cwt. per fathom. The No. 2 stope, in the back of the same level, is re-set to six men at 4s. per fathom, and the average produce of this stope is 25 cwt. to the fathom. The straight adit going north is re-set to four men at 11s. per fathom; the ground in this level is rather tight for driving, consequently but slow progress is made. The new adit south of river is re-set to two men, at 11s. per fathom; the ground here is much tighter than it has been, hence progress is slow. All surface operations are going on well.

BOG.—W. Nancarrow, J. Lean, March 6: The sets of timber alluded to in last week's report have all been put in, and the shaft made secure to the roof of the 100 fm. level. We have also caed around the whim-shaft, so that we are now able to draw stuff from the above-mentioned level. We shall now make preparations for the drop-lift bearers, which will be put in level with the 100 plat, and also the bearers and cistern for the 90 fm. plunger lift, which will be put in about 2 fm. below. Some of the castings for the same are on the mine, and no time shall be lost in getting the remainder delivered and fixed in their places. All other points of operation are without change to notice. The tribute pitches, on the whole, look a shade better, and on Monday next we shall sample 25 tons of lead ore, to be sold on the 17th inst.

BRONFLLOYD.—J. Davis, March 5: Settings for March: No. 3 Shaft, North Lode: This shaft is down 15 fms. 4 ft. under the 84 fm. level. The ground in the bottom is without change. Six men to drive the 84, west of winze, on the south part of the lode, at 24s. per fathom; worth 1½ ton of lead ore per fm. Four men to drive Balcombe's cross-cut south, from the 84, to cut the south lode, at 140. per fathom; ground tight for progress. Six men to drive the 74 west, at 20 s. per fathom, and the same men are to strip down all the lode at 9s. per fathom; lode for all its breadth worth 2½ tons of ore per cubic fathom. Six men to stope over the back of the 73, east of shaft No. 3, at 10s. per cubic fathom; lode worth 1 ton of ore per cubic fathom. Six men to stope over the back of the 63 west, at 10s. per cubic fathom; lode worth 1 ton of ore per cubic fathom. Four men to stope over the 63 east, at 7s. per cubic fathom; lode worth 15 cwt. of ore per cubic fathom. Four men to raise ore on tribute over the 52 west, at 12s. per ton, the party to allow 2½ per ton for dressing. We are making preparations to set another stope over the 84 fm. level west. All our machinery continues to look well. We delivered this aft noon, by the wire-tramway, 7 tons of dressed ore from the floors, to Cwmboi, ore bin.

BRYNAMBOR.—G. Sparge, March 6: Since my last report a further improvement has taken place in the 22 fm. level, driving east towards the pipes of lead, and if it continues to improve, this level will yield ore in paying quantities ere we intersect the shotts of lead gone down in the 12, which I expect to reach by the end of the present month. A great quantity of water still issues from the lode, and evidently shows an open lode exists between the 12 and 22 fm. levels; and when lodes are found large and open they are, as a rule, always found to be more productive; I, therefore, look forward to something very good speedily. The 22 fm. level is extended east of the shaft 6 fms., 5 ft. No material alteration has taken place in any other part of the mine. All the machinery is working well.

CAEGYNNON.—T. Hodge, March 5: The sumpens have driven west of shaft, in the 70, for the pit about 6 ft. to day. We shall commence to put in skip-road from the 60 to the 70, and hope to send the skip to the bottom by the end of this week. —North Lode: In the 60 west we have turned house to drive west on the course of the lode, but we have not taken down any of the leader part of the lode since my last. In the end we have a branch 4 in. wide, containing good spots of lead and muddle, which looks encouraging. In the 55 end west there is nothing new since my last; the ground continues hard, which renders progress slow. —North Lode: The 50, east of the cross-cut, is gradually improving as we drive, worth full 40 per fathom. The 20 west is worth 7s. per fathom. The 20 east is yielding saving work. The stope in the 20 west is worth 5s. per fathom. The stope in the back of the 20 east is worth 5s. per fathom. The stope in the back of the 10 east is worth 5s. per fathom. In the 10 end east we broke a good stope of lead to day; this indicates a change for the better for blonde, the present end being worth for blonde and had nearly 40 per fathom. In the other shotts there is no change worthy of notice, and the surface work is going on as usual.

CARMORIEN VEAN.—J. Vivian and Son, Nicholas Clymo, March 7: Old Main Lode: In the 110 fm. level, west of cross-cut, the lode is 3½ ft. wide, producing a little copper and tin throughout, and looking well for further improvement. In driving the back of this level, east and west of rise, east of the cross-cut east of cast-shaft, the lode is 3 ft. wide, and worth for the 40 ft. 15s. per fathom. In the back of the 110 fm. level, west of east shaft, the lode is 2 ft. wide, and worth about 1½ per fathom, for the 40 fm. Son's Lode: We have four tribute pitches working in the bottom of the 120 fm. level, west of cross-cut, in which the men are also doing well. Town Lode: In the 116 fm. level, west of the cross-cut, the lode is about 1 ft. wide, at present unproductive. In the stope in the back of this level the lode yields about 1½ ton of copper ore per fathom.

CAPPAGH.—William Thomas, March 4: No alteration of importance in the mine since last week, requiring notice. All the work is being carried out in a satisfactory manner. The schooner Vesper, with our ore for Swansea, will sail as soon as there is a shift of wind.

Castle An Dinas.—Thomas Parkyn, W. Kendall, March 6: The eastern and western stopes continue to produce excellent the stuff for the whole width of the elvan, which is about 12 fms., and produce very good work within 2 ft. of the surface. The stamps are now kept fully supplied. The new drum is in its place, and the necessary fixtures in connection with it are almost completed. Since we have had a change in the weather the water is forking, so that we hope in a very short time to resume operations by the deep level. The machinery and other operations are going on satisfactorily.

Castle Gate.—Thomas Parkyn, March 7: The men have cut into the lode called Duckpool lode several feet, and have taken out some good work for tin. They are not through it yet. I expect it is from 7 ft. to 8 ft. wide. This is 50 fm. east of the point where we have raised such a large pile of tinsulf that will pay well. I will report next week as to the size and quality of the lode.

CHIVERTON MOOR.—G. E. Treymaine, March 2: Setting Report: The 116 to drive west, by four men and four boys, at 4 ft. per fathom; lode 3 ft. wide, composed of flukes and quartz. The 105 to drive west, by four men and four boys, at 4 ft. per fathom; lode 3 ft. wide, producing good stones of lead and copper. The 95 to drive west, by six men, at 3 ft. 10s. per fathom; lode 12 cwt. of lead per fathom. The 95 to drive west, by six men, at 3 ft. 10s. per fathom; lode 15 cwt. of lead per fathom. The 95 to drive west, by four men and four boys, at 4 ft. per fathom; lode 20 cwt. of lead per fathom. We also set six tribute pitches at about 6 ft. per fathom. On Monday we shall sample 70 tons of our usual good quality ore.

CLARA CONSOLS.—N. Bray, J. Phillips, March 2: Sanford's engine-shaft is in a regular course of sinking below the 44, by contract for 5 fms. The ground in the cross-cut north is becoming more wet as we near the lode. The lode in the 22 west is about 1½ ft. in. composed of killas, quartz, and stones of boulders; progress rather slow on account of so much water. The 32 east still looks highly favourable; the lode is 2 ft. wide, giving a good sized leader of lead and blonde. In the winze sinking from the 20 to the 32 the ground is rather hard, but we are making every effort to communicate the points. The 20 east of the turnpike, is still unproductive, but it has a long stretch of untried ground ahead, with good prospects. The stope in back of the 32, and in back of the 30, east of the turnpike, are producing quite as much lead and blonde as hitherto. At Ponsonby's shaft we have commenced cutting plat in the 25, preparatory to driving levels east and west on the lodes. We are pleased to say that we completed the new 40-ft. pumping-wheel with the line of rods, on Monday last, and it works well. We have 20 tons of lead ore which may be sampled at any time.

CWM VIRON.—J. Kitto, March 2: We have made good progress in cutting lode and cross-cutting to the lode in the 48 since my last report, and we believe from the large stream of water coming out of the end of the cross-cut that we are close to the producing part of the lode, but I shall be able to say more about this by the end of the current week. There has been no change to notice in the 38 since my last. The lode in the rise still continues to yield about 2 tons of blonde per fathom, with a little lead ore. The 24 end, west of engine-shaft, is

at present poor, but here we are daily expecting an improvement, as we are close upon entering the best run of ore ground discovered and passed through in the 12. We have communicated the winze from the 12 to the 24, referred to in my last report, and have let stopes each end of the same, which are yielding good lead and blonde, and judging from what we have raised from the roof of the 12, immediately over this point, we may reasonably anticipate good returns from between the 12 and 24. The stopes in the roof of the 12 and 24 are yielding a fair quantity of blonde, all of which being mixed with lead lead ore in small quantities. We sold on Tuesday last, to Messrs. Dillwyn and Co., 40 tons of blonde, at 42s. 6d. per ton, and I hope to have a similar quantity for sale in a month from now.

COPENHAGEN AND WHEAL ABRAHAM.—Wm. Kitto, March 5: There is no alteration to the lode since I was in London last week, except we got a breakage of the balance bob at Pelly's engine-shaft at the 80 fm. level. The pit and nose piece broke last Saturday night, and we have ordered a new one, and expect it to day, hence the water has raised to the 200, and no doubt it will get to the 250 before it can be repaired.

DRERIPARK.—J. Bucknell, March 1: We have a cross-course crossing our shaft, it underlies us, and of the most promising character; the lode in the deep adit level will form a junction with this cross-course about 50 fm. west of the present end. I have every reason to believe our lode will hold good or improve as we near it; I consider everything looks well for a prosperous future.

J. Bucknell, March 7: We are pushing on the sinking of the shaft with all speed. We have cross-cut the lode in the deep adit 11 feet, of which 4 feet is a good lode for tin and copper, but the south part of the lode is disordered by means of another lode dropping into it; it appears that a little below the adit level they will form a junction, where we have reason to believe they will produce abundance of mineral.

DOLWEN CONSOLS.—David Evans, March 6: Western Main Adit: The lode in the end is still strong and solid, has increased from 4 to 5 ft. wide, is very watery, produces a strong mixture of muddle and lead ore, and is a very promising lode. —Eastern Main Adit: The end of this driving is without change.

EAST BASSET.—John Lean, March 6: The lode in the 110, east of Hodges's cross-cut, is worth 3½ tons per fathom. In the 110 cross-cut, west of flat-rod shaft, driving north, there is no change to notice. The rise in the back of the 110 is not communicated with the 100 fm. level end, west from Michell's cross-cut; the ground is now about spent, and the communication may take place before the week is out.

In the 90, driving west from Williams's cross-cut, we have intersected a shott, which has disordered the lode, now worth 15s. per fathom. In the 80, driving east from Michell's cross-cut, the lode is large, producing saving work for tin. We are stripping d. w. the south part of the lode, preparatory to driving east on its course; this is also producing saving work for tin. In the 80 cross-cut, west of sump-shaft, and within about 9 fathoms of the present end, is worth about 6s. per fathom for copper ore. We yesterday uncovered Copper Hill shaft at the bottom of the bob-pit, and find it is in a bad state for several fathoms below that; we intend examining it below that point to-morrow. The foundation of the house for the stamping-engine is taken out; we are now taking out foundation for outside loading. We are also taking out the engine; all the light work is on the mine, and hope to have it all here in about a week for this time. The stone in the present house is to be used in building the new house.

EAST BOSCHSWELL.—Wm. Eddy, March 6: The water is forced to the 60, the lode in the back of this level, east of engine-shaft, is 4 ft. wide, producing tinstuff; the lode has been worked extensively west of skip shaft. At surface we are building a long line for making a balance-bob, disconnecting fly-wheel shaft and sweep-rod from the pumping-engine, cutting bats through dressing floors; the masons are making fair progress with the whim engine-house. We have employed here six timbermen, four carpenters, in engine-shaft, two engineers, two carpers, two sawyers (occasionally), two smiths, six men and one boy at surface work, and six masons and four labourers on engine.

EAST CARADON.—John Truscott, March 6: In the 130 cross-cut south the ground continues hard elvan. The cauled lode, in the 115 east is 5 ft. wide, worth 5s. per fathom, 15 fms. west we are cross-cutting to see this lode, and have intersected a lode, and cut into it 2 ft.; for this distance it is crossed by four men, at 14s. per fathom; the end is strongly spotted with lead ore, and as this end is now very near to the point of perpendicular of No. 1 stope in the level above, I expect an improvement here soon. The No. 1 stope, in back of the 10 east, is re-set to four men, at 7s. per fathom; the average value of the lode is 20 cwt. per fathom. The No. 2 stope, in the back of the same level, is re-set to six men at 5s. per fathom; the lode in the 62 east is 2 ft. wide, composed of spar, muddle, and good stones of ore. —South Lode: The lode in the 47 east is 2 ft. wide, composed of gossan, muddle, and a little black oxide of copper. We have commenced a rise in the back of this level, upon a very promising piece of lode, worth at present about 1 ton of good quality ore per fathom.

EAST CWM VR'N.—John Kitto, March 5: We are getting on well with the driving of the 12, and in a fortnight from this date shall be ready to resume the sinking of the engine-shaft below. I am anxious to push on as rapidly as possible, and not moment will be lost in completing all the preliminary arrangements for deepening the mine to the 36, where I purpose again driving out to prove the lode, and at this level I expect ore in paying quantities will be met with.

We are driving the 24 east of engine-shaft by a full pair of six men, and by the end of the current month I expect to get into the run of ore ground discovered in the 12, when I hope to have something good to report. In the adit level, before resuming the driving west, as recommended in my last report, I purpose cross-cutting right through to the south wall of the lode, as I believe that a considerable portion of it is standing whole and untouched in this direction. This will prove its size and character, and if we make no further difficulty I have no doubt we shall find much easier ground in which to continue the driving westward. The machinery and pitwork are all in good repair, and working well.

EAST RHYDALOG.—J. Dunkin, March 6: Friday last being our pay and setting day, everything pa-sed off sati-factorily, and the following bargains were re-c'd. The 15, east of Rhydalog, to four men, at 6s. per fathom; the ground in this level continues favourable for producing lead ore; the part driving on is mixed with lead, blonde, and copper ore, and I have every reason to expect good results as soon as the main part of the lode is reached. The deep level, on same lode, to two men, at 6s. per fathom; the lode in this drivage is 2 ft. wide, composed of spar, and producing good stones of lead and copper. The deep level, on new lode, to four men, at 4f. 10s. per fathom; the lode in this level is 5 ft. wide, composed of clay-slate, mixed throughout with lead and blonde—a very fine looking lode.

EAST VAN.—Wm. Williams, March 5: We are progressing very favourably at East Van under all circumstances. The Sandycroft people have disappointed us by promising to send in the drawing-machine, &c., but as yet we have not seen anything of them. We had nice spots of lead in the shaft yesterday.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, March 2: There is no change since our last. The engine is working very well, and we are glad to inform you that the water is looking for.

EAST WHEAL LOVELL.—Richard Quantrell, March 6: I am glad to report a further improvement in the mine. In driving the 80 west the lode is better, and promises to further improve. This is important, as this end is 8 fms. west of the cross-course, and 7 fms. farther west than the bottom of the winze sinking below the 8', which is now down 8 fms., and in which I reported an improvement last week.

ESGAIN LLE.—John Williams, March 5: The lode in the 31 fathom level, going west of the cross-cut, is 2 yards wide, containing a dark clay-slate, intermixed with spar, some cubes of blonde, and veins of lead ore, yielding work of low quality. The lode in the stope in the back of this level, over the cross-cut, is 8 feet wide, and worth from 25 to 30 cwt. of lead per fathom. The lode in the stope in the bottom of the 22 fm. level, 20 fms. east of the cross-cut, is 6 feet wide, and worth 15 cwt. of lead per fathom. The lode in the winze in the bottom of the 22 fm. level, 35 fms. west of the cross-cut, is 6 feet wide, and worth from 12 to 15 cwt. of lead per fathom; pre-ent depth about 6½ fms. below the level. The 22 fm. level west has again got into tight ground; the lode is 3 feet wide, composed chiefly of spar, intermixed with killas, cubes of blonde, and spots of lead ore, but not to value. The lode in the stopes over the back of ditto, west of the 12, has fallen off in value since the last report; the lode is not so productive as we stope upwards; its present value is from 10 to 12 cwt. of lead per fathom. Good progress has been made in the new cross-cut, south at Eliza's shaft; the stuff from this place being now lifted by machinery instead of manual labour, tell its own tale. We sampled on Tuesday last, the 27 ultimo, 20 tons of lead ore, biddings for the same will be sent on Tuesday next, the 12th instant.

EXCELSIOR.—G. Rickard, March 6: Saturday last being the monthly pay and setting day, the adit level was set to drive west of whim-shaft by six men, at 7f. 10s. per fathom, stented the month. The lode continues to produce tinstuff of fair quality. We have driven at this point over 16 fms., through a good driving lode, with every prospect before us of continuing doing so under the extensive workings of the ancients.

FRANK MILLS.—J. Cornish, F. Cornish, N. Addems, March 6: We have now passed through all the lode in the cross-cut east from the 130 north; it is now about 11 ft. wide, consisting of quartz and white iron, intermixed with lead ore, but it is rather too hard to be of much value. In the 115 north the ground is without any particular change, consisting principally of a light-coloured elvan.

In the 100 north we have cut through the lode, and are now driving north and south from the cross-cut on its course, and each end is yielding 1½ ton of lead ore per fathom, with good prospect of its continuing. In the cross-cut driving east from the 45, south from Orchard air-shaft, we have not yet intersected any more lode, and the ground continues much the same; we hope, however, to soon meet with another part of the lode. In the 45, driving north from Orchard air-shaft, on a west branch, the end is yielding 3 cwt. of lead ore per fathom, and from its very favourable appearance we are daily expecting an improvement.

The ground in the cross-cut east, in the 31, directly south from the engine-shaft, is at present rather stiff; we shall have to drive to 5 or 6 fath

have set an end to drive east on the same lode, which is producing saving work for us, and likely to improve. There is no material change in any other part of operations.

WHEAL RUBY.—J. Richards, March 6: The clearing of the adit level progresses favourably, which is being pushed on as fast as possible with a full party of men. We have reached a counter lode, which is worked extensively as far as the old miners could go down, and must have been found productive for some time. When the mine is opened more extensively this lode may be found a great auxiliary, which intersects the main lode about 50 fms., west of our present point of operation. We have had several shafts to rise on this adit, which we are firmly collaring and making secure as we proceed.

WHEAL RUSSELL.—John Bray, March 7: The lode in the shaft below the adit is 5 ft. wide, producing a little ore, not to value. The lode in the stopes west of shaft, below the adit, is worth 20/- per fathom; the lode in the adit itself is 4 ft. wide. Yesterday we struck some very good stones of ore, the best that have been seen for the last 20 fathoms. I believe we are near a good improvement. The lode in the 40 east is worth 16/- per fathom. The lode in the 25 fms. rise above the back of this level is worth 20/- per fathom. The lode in the 25 east is poor. The lode in the wing below this level is worth 12/- per fathom. The lode in the stopes above the back of the said level is worth 10/- per fathom. We have two stopes working about the 40; the lode is worth 20/- per fathom in each. The 40 west is poor.

WHEAL SPARROW.—N. Tregay, March 2: The engine started off well, and we forked 4 fms., when we had two mishaps; some stones, we suppose, thrown into the column by boys while the engine was idle got under the clock, and before we cleared them the adit ran together. We have now both cleared the adit and the pumpwork, and the engine is working well. If this continues we shall soon make some progress in working. No other change.

WHEAL UNY.—W. Rich, M. Rogers, S. Coade, Jun., March 2: The 80, east of Goodings', is worth 20/- per fathom. The 60 east is worth 20/- per fathom. The 45 east is worth 15/- per fathom. We are fixing a drawing-lift in King's new skip-shaft, to help the pumping-engine. The water is over the blocks at the 80 fm. level; we can just keep it from rising when the engine is working 10 strokes per minute. The adit is being cleared at East Wheal Uny, with a view to let down the water pooled back in the mine, and which will probably assist us her.

WHEAL WHISPER.—T. Bowe, March 7: The stopes north of the big workings continues to improve. We are now down 2 fathoms, and have good branches of tin and stains of copper. I have good reason to believe that when we reach the slide, which takes off 2 fathoms deeper on the north side, we shall make some further improvement. Wheal Blawdon side continues to produce good work from the attie. We sample this week, with an improvement upon last.

WILLOUGHBY.—H. Nottingham, March 7: The level driving south from Pyne's shaft is yielding some good stuff for the dressing-floors. The lode is about 18 in. wide, grey throughout, and yielding nearly equal quantities of lead and blende, and ground fair for driving. The north end continues hard, with a branch of lead and blende about 3 in. wide on the footwall, and still letting out a good deal of water. Both of these ends are now in regular course of driving by a full set of men, and I have another set cutting ledge on east side of the shaft, and when this is finished, if we do not cut the other lode in the north end, I shall put this set of men to cross-cut from the ledge for the other lode. We had a very heavy fall of rain the latter part of last week, which hindered us with surface work; but this week is extremely fine, so that we are going on well at present. I am pushing on as fast as possible with everything connected with the crushing and other machinery, and also the tramways; and if the weather will settle we shall not be long in getting a way clear for the stuff we are now breaking down to the crusher.

TANKERVILLE.—The sinking of the shaft is progressing very satisfactorily, being down 3½ fathoms below the 120. The stope in the back of the 120 west is in a course of lead 8 ft. wide, nearly solid.

NEW VAN.—The prospectus of this valuable property has attracted a good deal of attention during the week. We understand that the subscription list will shortly be closed.

PERRIN WHEAL VVYVAN (Limited).—A steady demand for these shares continues, caused not only by the improved prospects of the mine, but from the fact of the vendors setting an example which it could be wished was more generally followed. Their refusing to accept cash for the mine, preferring the whole of the purchase money in shares, speaks highly of their opinion in the future of the property. This, supplemented by the directors declining to accept any remuneration for their services until the mine is more developed, has gained an amount of confidence seldom met with.

CAMP FLOYD.—Six car loads of machinery have arrived, for the construction of the mill at Camp Floyd, on the Sparrow Hawk Mine. Capt. Shaw (superintendent) arrived this morning from San Francisco. Everything is in readiness at the mill, and the site for its reception. Work will be pushed forward as rapidly as possible until it is completed.

APPEAL IN BANKRUPTCY.—Before the Lords Justices James and Mclach, March 7. The Stannary Court sought to recover 154/-, being the calls on shares in Wendron Consol., made by Mr. Marshall, as liquidator, upon the defendant, who pleaded bankrupt since the mine had been in liquidation. The appeal was dismissed, with costs.

Syndicate of French, Spanish, and Italian bankers has arranged with M. Lamiable, the concessionaire of the railway from Seville to Huelva and the Mines of Rio Tinto, for the immediate introduction of that undertaking and its construction by an Italian company.

Mr. Thomas Bagnall, of Grosmont Ironworks, near York, has joined the board of the Central Swedish Iron and Steel Company (Limited).

SUPPOSED NEW GOLD FIELD.—At the meeting of the Royal Geological Society on Monday a communication received through Sir Charles Nicholson was read, relating the incidents of a visit by a vessel to the supposed unapproachable island of the New Guinea chain. The crew were hospitably treated by the black islanders; but being white, they had, at first, some difficulty in satisfying the natives they were really human beings. There was some reason to conclude, the statement added, that future explorations would prove the island to be fertile in gold and other precious mineral products.

THE MINING JOURNAL.—Now ready, neatly bound, price 17. 10/-, VOLUME XL, for the year 1871. To be had through any newsagent or bookseller, or direct from the *Mining Journal* office, 26, Fleet-street, E.C.

The Society of Accountants in England.
A GENERAL PUBLIC MEETING OF PUBLIC ACCOUNTANTS PRACTISING IN ENGLAND will be HELD in London, at the Cannon-street Hotel, at Two o'clock on THURSDAY, the 14th day of March next, for the purpose of approving and adopting the Rules and Regulations of the Society of Accountants in England, as drawn up by the Rules Committee, and approved by the Council, in accordance with a resolution of the General Public Meeting held at the Cannon-street Hotel, on Thursday, Jan. 11, 1872.

By order of the Council,
ALFRED C. HARPER, Secretary pro tem.

Temporary Office, 2, Copper's-court, Cornhill.

THE CAPE COPPER MINING COMPANY (LIMITED).—Notice is hereby given, that at a MEETING of the directors of this company, HELD TO-DAY, it was resolved:—

"That a Dividend of Seven Shillings and Sixpence per share, free of income tax, be now declared, payable on the 25th day of March instant, and that the transfer-books be closed from the 18th to the 25th March, both days inclusive."

By order of the Board,
J. C. LEAVER, Secretary.

6, Queen-street-place, Upper Thames-street, London, E.C., 6th March, 1872.

E CLIPSE GOLD MINING COMPANY (LIMITED).

The Directors of the Eclipse Gold Mining Company (Limited) have the pleasure to announce that the WHOLE of the SHARES of the NEW ISSUE of CAPITAL have been ALLOTTED.

51, Moorgate-street, March 7, 1872.

HENRY HAYMEN, Chairman.
FREDK. R. BLUETT, Secretary.

THE "ROYALE BELGE" ASSURANCE COMPANY, ESTABLISHED 1855.

ENGLISH BRANCH FOR COLLECTIVE ASSURANCE against INJURIES arising from PERSONAL ACCIDENTS.

LONDON, NO. 2, AUSTINFRARIAS, E.C.

MERCHANTS, MANUFACTURERS, AND TRADERS, REQUIRING ACCOMMODATION,

Should apply in the first instance, in confidence, to—

"Z," 9, ZENNOR ROAD,

CLAPHAM PARK,

SURREY.

SILK AND CO., STOCK AND SHARE BROKERS,

32, REGENT STREET, PICCADILLY, W.

FRANK LIMMER, Secretary.

M. R. PERCY ROBERTS, FINANCIAL AGENT,

60, ENGLISH STREET, CARLISLE.

TWENTY-FIVE THOUSAND PER DAY.—ADDRESSED WRAPPERS, ENVELOPES, &c., ALWAYS READY for the West-end and County Court; 25,000 circulars or prospectuses addressed, folded, and enclosed per day from shareholders' lists in mining, railway, and other companies. Terms for addressing, 3d. 6d. per thousand.

Address A. HAMMOND, care of Wm. Dawson and Sons, 121, Cannon-street, E.C.

GUIDE TO INVESTMENTS. Published monthly. Post free.

S P A R G O ' S " G U I D E T O I N V E S T M E N T S " affords information (ample and correct) of all the best-paying investments. Capitalists and men of business should consult the "Guide" for valuable and reliable intelligence.

THOMAS SPARGO,

Gresham House, Old Broad-street, E.C.

Established Twenty-five Years, Fifteen at the above address.

* * * With this week's *Journal* a SUPPLEMENTAL SHEET is given, which contains: Mr. Warington Smyth's Lectures at the Royal School of Mines—Bottlers at Mines and Ironworks—Cleveland, Its Past, Present, Future, &c.—South Midland Institute of Engineers—Foreign Mining and Metallurgy—Foreign Mines Reports—Geology of Utah—Alluvial Gold Mining in Colombia—Yorke Peninsula—Minning Company—Malaga Lead Company—Variable Expansion Gear for Winding Engines (Illustrated)—Watchman's Electric Tell-Tale Clock (Illustrated)—Patent Matters, &c.—Original Correspondence—Mines Inspection Amendment Bill (No. VI.)—Sinking Shafts by Machinery—General Practical Mining (J. Sprague) Tin Dressing (J. Sprague); Remarks on the Origin and Formation of Metalliferous Veins (R. Klap); Scientific Mining in England (T. J. Barnard); Queen, King, and Virtuous Lady Mines (T. J. Barnard); Vitality of Cornish Mining (G. Rickard); Gem Tin Mine (W. Martin); Old Treburch Silver and Lead Mining Company (J. H. Tilly); Mining in Cardiganshire, 1872 (S. Trevelyan); Mining and Mine Agents (J. Addison); Plymhill Mine, and its Management; Brazilian Gold Mining Companies; St. John's Rio Mining Company; Tharsis Sulphur and Copper Company (J. Thomson);

more than a pass in effect: 145/- has been paid for cash parcels of Straits, and for January shipment 146/-, and 142/- for six months' delivery, sellers option; 110 tons for delivery 10 tons per month up to the end of the year at 110/-, same of these transactions are evidently "bear sales," and ought to be put at 14/- to 15/- per ton, and the stock there is much reduced. English has advanced, and is well held, and the stock there is much reduced. English has advanced, and prices are very firm; blocks are now 14/-, and bars 16/- to 15/-, 10/-, 11/-, 12/-, 13/-, 14/-, 15/-, 16/-, 17/-, 18/-, 19/-, 20/-, 21/-, 22/-, 23/-, 24/-, 25/-, 26/-, 27/-, 28/-, 29/-, 30/-, 31/-, 32/-, 33/-, 34/-, 35/-, 36/-, 37/-, 38/-, 39/-, 40/-, 41/-, 42/-, 43/-, 44/-, 45/-, 46/-, 47/-, 48/-, 49/-, 50/-, 51/-, 52/-, 53/-, 54/-, 55/-, 56/-, 57/-, 58/-, 59/-, 60/-, 61/-, 62/-, 63/-, 64/-, 65/-, 66/-, 67/-, 68/-, 69/-, 70/-, 71/-, 72/-, 73/-, 74/-, 75/-, 76/-, 77/-, 78/-, 79/-, 80/-, 81/-, 82/-, 83/-, 84/-, 85/-, 86/-, 87/-, 88/-, 89/-, 90/-, 91/-, 92/-, 93/-, 94/-, 95/-, 96/-, 97/-, 98/-, 99/-, 100/-, 101/-, 102/-, 103/-, 104/-, 105/-, 106/-, 107/-, 108/-, 109/-, 110/-, 111/-, 112/-, 113/-, 114/-, 115/-, 116/-, 117/-, 118/-, 119/-, 120/-, 121/-, 122/-, 123/-, 124/-, 125/-, 126/-, 127/-, 128/-, 129/-, 130/-, 131/-, 132/-, 133/-, 134/-, 135/-, 136/-, 137/-, 138/-, 139/-, 140/-, 141/-, 142/-, 143/-, 144/-, 145/-, 146/-, 147/-, 148/-, 149/-, 150/-, 151/-, 152/-, 153/-, 154/-, 155/-, 156/-, 157/-, 158/-, 159/-, 160/-, 161/-, 162/-, 163/-, 164/-, 165/-, 166/-, 167/-, 168/-, 169/-, 170/-, 171/-, 172/-, 173/-, 174/-, 175/-, 176/-, 177/-, 178/-, 179/-, 180/-, 181/-, 182/-, 183/-, 184/-, 185/-, 186/-, 187/-, 188/-, 189/-, 190/-, 191/-, 192/-, 193/-, 194/-, 195/-, 196/-, 197/-, 198/-, 199/-, 200/-, 201/-, 202/-, 203/-, 204/-, 205/-, 206/-, 207/-, 208/-, 209/-, 210/-, 211/-, 212/-, 213/-, 214/-, 215/-, 216/-, 217/-, 218/-, 219/-, 220/-, 221/-, 222/-, 223/-, 224/-, 225/-, 226/-, 227/-, 228/-, 229/-, 230/-, 231/-, 232/-, 233/-, 234/-, 235/-, 236/-, 237/-, 238/-, 239/-, 240/-, 241/-, 242/-, 243/-, 244/-, 245/-, 246/-, 247/-, 248/-, 249/-, 250/-, 251/-, 252/-, 253/-, 254/-, 255/-, 256/-, 257/-, 258/-, 259/-, 260/-, 261/-, 262/-, 263/-, 264/-, 265/-, 266/-, 267/-, 268/-, 269/-, 270/-, 271/-, 272/-, 273/-, 274/-, 275/-, 276/-, 277/-, 278/-, 279/-, 280/-, 281/-, 282/-, 283/-, 284/-, 285/-, 286/-, 287/-, 288/-, 289/-, 290/-, 291/-, 292/-, 293/-, 294/-, 295/-, 296/-, 297/-, 298/-, 299/-, 300/-, 301/-, 302/-, 303/-, 304/-, 305/-, 306/-, 307/-, 308/-, 309/-, 310/-, 311/-, 312/-, 313/-, 314/-, 315/-, 316/-, 317/-, 318/-, 319/-, 320/-, 321/-, 322/-, 323/-, 324/-, 325/-, 326/-, 327/-, 328/-, 329/-, 330/-, 331/-, 332/-, 333/-, 334/-, 335/-, 336/-, 337/-, 338/-, 339/-, 340/-, 341/-, 342/-, 343/-, 344/-, 345/-, 346/-, 347/-, 348/-, 349/-, 350/-, 351/-, 352/-, 353/-, 354/-, 355/-, 356/-, 357/-, 358/-, 359/-, 360/-, 361/-, 362/-, 363/-, 364/-, 365/-, 366/-, 367/-, 368/-, 369/-, 370/-, 371/-, 372/-, 373/-, 374/-, 375/-, 376/-, 377/-, 378/-, 379/-, 380/-, 381/-, 382/-, 383/-, 384/-, 385/-, 386/-, 387/-, 388/-, 389/-, 390/-, 391/-, 392/-, 393/-, 394/-, 395/-, 396/-, 397/-, 398/-, 399/-, 400/-, 401/-, 402/-, 403/-, 404/-, 405/-, 406/-, 407/-, 408/-, 409/-, 410/-, 411/-, 412/-, 413/-, 414/-, 415/-, 416/-, 417/-, 418/-, 419/-, 420/-, 421/-, 422/-, 423/-, 424/-, 425/-, 426/-, 427/-, 428/-, 429/-, 430/-, 431/-, 432/-, 433/-, 434/-, 435/-, 436/-, 437/-, 438/-, 439/-, 440/-, 441/-, 442/-, 443/-, 444/-, 445/-, 446/-, 447/-, 448/-, 449/-, 450/-, 451/-, 452/-, 453/-, 454/-, 455/-, 456/-, 457/-, 458/-, 459/-, 460/-, 461/-, 462/-, 463/-, 464/-, 465/-, 466/-, 467/-, 468/-, 469/-, 470/-, 471/-, 472/-, 473/-, 474/-, 475/-, 476/-, 477/-, 478/-, 479/-, 480/-, 481/-, 482/-, 483/-, 484/-, 485/-, 486/-, 487/-, 488/-, 489/-, 490/-, 491/-, 492/-, 493/-, 494/-, 495/-, 496/-, 497/-, 498/-, 499/-, 500/-, 501/-, 502/-, 503/-, 504/-, 505/-, 506/-, 507/-, 508/-, 509/-, 510/-, 511/-, 512/-, 513/-, 514/-, 515/-, 516/-, 517/-, 518/-, 519/-, 520/-, 521/-, 522/-, 523/-, 524/-, 525/-, 526/-, 527/-, 528/-, 529/-, 530/-, 531/-, 532/-, 533/-, 534/-, 535/-, 536/-, 537/-, 538/-, 539/-, 540/-, 541/-, 542/-, 543/-, 544/-, 545/-, 546/-, 547/-, 548/-, 549/-, 550/-, 551/-, 552/-, 553/-, 554/-, 555/-, 556/-, 557/-, 558/-, 559/-, 560/-, 561/-, 562/-, 563/-, 564/-, 565/-, 566/-, 567/-, 568/-, 569/-, 570/-, 571/-, 572/-, 57

sum of 8577, 9s. 6d.; Gawton, 5s to 6; Great Caradon, 4s to 1; Great Laxey, 14 to 15; Great Wheal Vor, 8s to 9.

Wheat Emily Henrietta, 14 to 16; at the meeting, on Monday, the accounts showed a loss of 12847, in three months, and a call of 30s. per share was made. Gwydyr Park, 4s to 1; Herodsfoot, 36 to 38; Hingston Down, 3s to 3s; Marke Valley, 4s to 4s; Nangiles, 1 to 1s; New Lovell, 2s to 2s; North Lovell, 4s to 5; North Roscar, 26 to 28; Old Bottle Hill have advanced to 12s, 15; Penhalls, 4s to 4s; Parys Mountain, 2s to 3s; Pennerley are not so firm, at 4s to 4s; Perkin's Beach, 2s. 6d. to 30s.; Plymmon, 2s. 6d. to 32s. 6d.; Providence Mines, 26 to 27; Polbreen, 8 to 8s; Roman Gravels, 18 to 19; South Roman Gravels, 1s to 1s; Rosewall Hill and Ransom, 1s to 1s; South Carn Brea, 7 to 7s; South Condurrow, 6s to 7. South Crofton have advanced to 70, 7s—a rise of 30s. per share since the meeting; a cross-cut is being driven to cut the East Pool north tin lode, and this is considered a very important point. St. Ives Consols, 2s to 2s; Tankerville, 18 to 19; Trumpet Consols, 16 to 17; Van, 4s to 4s; West Bassett, 15 to 16; West Caradon, 6s. 6d. to 7s. 6d.; West Chiverton, 14 to 15; West Drake Walls, 4s. to 5s.; West Frances, 29 to 31; West Maria and Fortescue, 1s to 1s; West Seton, 95 to 100; West Tankerville, 3s to 4s; Wheal Buller, 27s to 30; Wheal Jane, 4s to 4s; Wheal Kitty (St. Agnes), 13 to 14; Wheal Lucy, 10 to 12; West Lucy, 3s to 4s; Wheal Uny, 6s to 7s; West Polbreen, 3s to 3s; Unity Wood, 1s to 1s; St. Agnes Consols, 3s to 3s; West Jewell, 2s to 2s; West Pant-y-Go, 4s to 4s.

Among Foreign Mine, Emmas have been firmer at par, to a small premium; particulars of the meeting will be found in another column. The ores sold during the four months have amounted to 240,000s.; and 57,000s. have been paid away in dividends, leaving an available balance for future dividends of 183,000s. Eberhardt and Aurora are rather weaker, at 8s to 9s. Particulars of this meeting will also be found in another column. From September, 1870 to 21st last January, the silver raised realised 150,000s., of which 30,000s. was profit. As regards the financial position, it is hoped by the end of April the mine will be free from debt. The directors, however, are to have powers to borrow capital, not exceeding 35,000s., should it ever be necessary to do so. Utahs became flat on Friday, and leave off 4 to 4s.

Subjoined are the quotations for foreign securities recently introduced:—The shares of the United States Boiling Stock Company are 1s to 2 prem.; Blaaforsholm's Certificates for Erie shares, 32s to 33s.; the Seven per Cent. Royal Trust Bonds of the Atlantic and Great Western Railroad Company are 4 to 4s prem.; Mexican Railway fully-paid Bonds are 6s to 6s ex coupon; the Six per Cent. Argentine Government Bonds are 3s to 3s prem.; the shares of the Silver Plume Mining Company are 1s to 2s per share; Flagstaff Silver Mining Company of Utah, 1 to 1s prem.; Goux Mairé and Sanitary Company, 1 to 1s prem.; German Union Telegraph Company, 21 to 21s per share. We are informed that the allotment letters of the Central Swedish Iron and Steel Company will be posted on Tuesday next, the 12th inst. The shares are 2s to 2s prem.

The Market for Mine Shares on the Stock Exchange during the week has been active, and a considerable business has been transacted in the shares of tin mines, owing to several improvements in the mines, and also to a rise in the price of that metal.

Shares in the American Mines, and in Foreign Mines generally, have been in better demand, at improved prices. The advices, which have been delayed owing to the snow blockade on the Pacific lines of railway during the last month, are due on Monday. Important despatches are known to be on the way from some of the most prominent of these companies.

In Lead Mines, a large business has been transacted in Pennerley, Van, East Van, Bug, Van Consols, Roman Gravels, and Tankerville. Pennerley shares, on the important discovery in the 130 (or bottom) level rose to 5, but a new weaker, at 4s to 4s. The mine report, which appears in another column, indicates further improvements—developments in reserves of ore beyond the present returns. The sampling on Monday will be 75 tons for the month. Bog, 2s; satisfactory progress is being made in draining the mine, which is now clear below the 100 fms. level. The costs of draining the mine are nearly met by the returns, which this month show an increase of 5 tons. East Van shares have improved to 7s, 7s; Capt. Williams reports that good stones of lead are being met with in sinking the shaft. Roman Gravels, 18 to 18s; Tankerville, 18 to 19; Van, 4s to 4s. No change of importance is recorded in these leading mines.

Full particulars, with reports, plans, &c., will be forwarded on application to "Y," Post Office, Bangor.

A THOROUGHLY EXPERIENCED CHEMIST is OPEN to an ENGAGEMENT as MANAGER. Practically acquainted with the Manufacture of Acids, Alkalies, Bleaching Powder, Salts of Ammonia, Artificial Mauere, Extraction of Copper by Wet Process, &c., &c. Good references. Address, 68, W. Porteous and Co., Glasgow.

A CIVIL AND MINING ENGINEER AND SURVEYOR, of extensive practice, will shortly have VACANCY for an ARTICLED PUPIL. Address, "W. B.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

WANTED, TO BUY, ABERDOVEY LEAD MINE SHARES, situated near Towny. Address, MILLETT THOMAS, 64, Duke-street, Liverpool.

T U O L U M N E G O L D M I N I N G C O M P A N Y.—FOR SALE, SIXTY SHARES, fully paid, price £1 each. Address, "X. Y.," MINING JOURNAL Office, 26, Fleet-street, London.

ONE HUNDRED WEST JEWELL (TIN), at 47s. 6d.—Owing to the extraordinary wet winter, the prediction of 40 per cent. dividends by Captain Mitchell has not yet been realised; but now that fair weather has set in the 42 must soon be laid dry, when these shares will, no doubt, be considered cheap at twice their present price.

Address, "X. Y. Z.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

I N V E S T M E N T.—TIN MINE FOR SALE, IN CORNWALL, under special circumstances, which will induce the owner to accept a low price. Plant and machinery to complete working order.

Principals may apply to the proprietor, by letter, addressed "X. M.," care of James Hartill, Esq., Longford House, Feltham.

F O R S A L E, IRON MINES in the NORTH OF NORWAY, situated about 48 English miles from the sea, accessible to ships of any draught of water.

Apply to BORRIES CRAIG, Newcastle-upon-Tyne.

F O R S A L E, a good and strong 80 inch ENGINE, 10 feet and 8 feet 3 inches stroke, with or without THREE 11 tons BOILERS. Also, a large quantity of PITWORK, BALANCE BOBS, &c. Apply to WEST and SONS, Par Station, Cornwall.

F O R S A L E, IN THE COUNTY OF DURHAM, A LARGE RESIDENTIAL ESTATE, containing about SEVEN HUNDRED ACRES of HIGHLY PRODUCTIVE LAND, together with the COAL ROYALTIES below, as proved by borings.

Applications, in writing, to be addressed, under cover, to ROBERT BLAND DIXON, Land Valuer and Estate Auctioneer, Darlington.

TO CAPITALISTS, AND OTHERS, F O R S A L E, a VALUABLE WELSH LEAD MINE, in a good mining district.

For further information, apply to Mr. FRED. OWEN, Tanyclawdd, Ruabon, North Wales.

F O R S A L E, a SUPERIOR 45-in. PUMPING-ENGINE, 10-ft. and 9-ft. stroke, without boilers. Apply to Captain TAYLOR, Balleswidden, St. Just.

RAILS, NEW, but slightly defective, from 30 to 82 lbs, suitable for COLLIERIES, &c., TO BE SOLD, very cheap.

Apply to BREYEN, RICHARDSON, and Co., Trinity Chambers, Newcastle-on-Tyne.

C U R W E N B R O T H E R S, IRON ORG MERCHANTS AND BROKERS, 33, HINDPOOL ROAD, BARROW-IN-FURNESS,

On the 17th of every month, price One Penny, the I N V E S T M E N T R E V I E W: A Monthly Record of COMMERCIAL AND FINANCIAL PROGRESS. Edited by JOHN ROBERT PIKE.

Investors and speculators will find in this Review much information not otherwise obtainable. The selection of dividend and progressive mines cannot fail to be wonderfully remunerative at present prices.

Crown-chambers, Threadneedle-street, E.C.

J O H N B. REYNOLDS, STOCK AND SHAREDEALER, 70 AND 71, BISHOPS-GATE STREET WITHIN, LONDON, E.C.

Is able to obtain reliable information concerning British and Foreign Mines. The long experience he has had is at the service of the public.

And invites instructions concerning mines not dealt in on the London market.

Providing always that the undertakings are bona fide.

Established Fifteen Years.—Bankers: City Bank.

I M P O R T A T O I N V E S T O R S I N B R I T I S H A N D F O R E I G N M I N E S, RAILWAY STOCKS, and other Securities of all descriptions.

Dividends at the rate of 5, 10, and 15 per cent.

Consult MR. JOHN B. REYNOLDS' SPECIAL LIST OF INVESTMENTS.

Sent free by post on application to JOHN B. REYNOLDS, Stock and Share Dealer, 70 and 71, Bishops-gate-street Within, London, E.C.

The report of Bolestock, Vaughan, and Co. (Limited), to be presented at Manchester on March 21, shows an available total of 181,964l., and recommends a dividend of 14. 10s. per share, with a bonus of 3s, making, with the previous payment, 20 per cent. for the year, and leaving, after an addition of 10,000l. to reserve (thus raised to 85,000l.), 54s. 6d. to be carried forward. The company, in conjunction with John Brown and Co. (Limited), Sheffield, have secured the concession of important hematite ore mines in Spain, from which to the shipping place they contemplate making a tramway of about 6 miles.

The British Association meets this year at Brighton, under the presidency of Dr. Carpenter; and it is understood that it has been decided to hold next year's meeting at Bradford.

Tenders for Gas Coals.

THE DIRECTORS of the IMPERIAL GAS-LIGHT AND COKE COMPANY, LONDON, are open to RECEIVE TENDERS for a SUPPLY of COALS, suitable for the manufacture of gas.

Further particulars, and forms of tender, which must be sent in not later than Tuesday, the 19th March, may be obtained on application to the undersigned,

HARRY CHUBB, Secretary. 33, John-street, Bedford-row, London, W.C., March 1, 1872.

COAL WORKING IN SWEDEN.

THIS HOLDER of CONCESSIONS to WORK an EXTENSIVE PROPERTY, beneath which are valuable SEAMS of COAL of various thicknesses, up to 8 feet, desire to meet with a COMPETENT COLLIER ENGINEER, willing to UNDERTAKE the ENTIRE CONTROL of the WORKING and RAISING the COAL to the pit's mouth upon contract.

For full particulars, address Mr. H. ATKINSON, 33, Wharf-road, City-road, N.

WANTED, by the BOWLING IRON COMPANY (Limited),

A CHIEF ENGINEER for their works.

Apply to "Managing Director," Bowring Ironworks, Bradford.

WANTED, a RESPECTABLE WELL-EDUCATED YOUTH

as an ARTICLED PUPIL.

Apply to Mr. J. PERRINS, Mining Engineer, Wigan.

WANTED, a PUSHING MAN as UNDERTAKER for a

SILKSTONE COLLIERY in the MIDLAND COUNTIES.

Address, by letter, with references, to "Colliery Owner," Post Office, Chesterfield.

WANTED, in the Office of a Civil and Mining Engineer and

Surveyor, A COMPETENT ASSISTANT.

Address, stating age, salary required, &c., to J. G. KIMPTON, 40, St. Mary's Gate, Derby.

WANTED, an active Gentleman as a PARTNER, with not less than £2000 to JOIN an ESTABLISHED COLLIERY, which is in full work, and paying well.

Apply by letter, addressed to Mr. PRITCHARD, 34, Bedford-row, Holborn, London.

ENGINE WANTED.

WANTED, for Wheal Peevor, near Redruth, a good PUMPING ENGINE, of 60 or 70 inches cylinder, with one or two BOILERS.

Apply, stating where it may be seen and lowest price, to Mr. THOMAS PYTOR, Redruth.

WANTED, a NEW or GOOD SECOND-HAND STEAM CRAB or CAPSTAN (without boiler) to lift 12 tons; drum about 4 feet diameter.

Apply to Mr. G. C. GREENWELL, Poynton and Worth Collieries, near Stockport.

WANTED, TO PURCHASE, a WATER-WHEEL, in good state of preservation, 40 ft. in diameter, by 3 ft. or 3 ft. 6 in. breast.

Apply, with price, and full particulars, to "J. H.," 2, Circus-place, Finsbury-circus, London, E.C.

ENGINE WANTED, of 16 to 20 inch cylinder, suitable for pumping and winding, and with about 20 fathoms of 8 inch PUMPS.

Apply, "Manager," Mosses, Burbage and Co., Advertising Agents, 35a, Moorgate street, E.C.

A WELSH LEAD MINE.

A PARTY, who have expended upwards of £200 in the development of the above, would be glad to ASSIGN ONE-HALF of their INTEREST in the same (one half of the mine) to any PARTNER or parties who would undertake to EXPEND £200 in the FURTHER DEVELOPMENT of the MINE. There are four splendid looking lodes already discovered, all producing lead, blende, and barytes, and very favourably reported upon by some of the highest authorities.

Full particulars, with reports, plans, &c., will be forwarded on application to "Y," Post Office, Bangor.

A THOROUGHLY EXPERIENCED CHEMIST is OPEN to an ENGAGEMENT as MANAGER. Practically acquainted with the Manufacture of Acids, Alkalies, Bleaching Powder, Salts of Ammonia, Artificial Mauere, Extraction of Copper by Wet Process, &c., &c. Good references. Address, 68, W. Porteous and Co., Glasgow.

A CIVIL AND MINING ENGINEER AND SURVEYOR, of extensive practice, will shortly have VACANCY for an ARTICLED PUPIL. Address, "W. B.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

WANTED, TO BUY, ABERDOVEY LEAD MINE SHARES, situated near Towny. Address, MILLETT THOMAS, 64, Duke-street, Liverpool.

T U O L U M N E G O L D M I N I N G C O M P A N Y.—FOR SALE, SIXTY SHARES, fully paid, price £1 each. Address, "X. Y.," MINING JOURNAL Office, 26, Fleet-street, London.

ONE HUNDRED WEST JEWELL (TIN), at 47s. 6d.—Owing to the extraordinary wet winter, the prediction of 40 per cent. dividends by Captain Mitchell has not yet been realised; but now that fair weather has set in the 42 must soon be laid dry, when these shares will, no doubt, be considered cheap at twice their present price.

Address, "X. Y. Z.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

I N V E S T M E N T.—TIN MINE FOR SALE, IN CORNWALL, under special circumstances, which will induce the owner to accept a low price. Plant and machinery to complete working order.

Principals may apply to the proprietor, by letter, addressed "X. M.," care of James Hartill, Esq., Longford House, Feltham.

F O R S A L E, IRON MINES in the NORTH OF NORWAY, situated about 48 English miles from the sea, accessible to ships of any draught of water.

Apply to BORRIES CRAIG, Newcastle-upon-Tyne.

F O R S A L E, a good and strong 80 inch ENGINE, 10 feet and 8 feet 3 inches stroke, with or without THREE 11 tons BOILERS. Also, a large quantity of PITWORK, BALANCE BOBS, &c. Apply to WEST and SONS, Par Station, Cornwall.

F O R S A L E, IN THE COUNTY OF DURHAM, A LARGE RESIDENTIAL ESTATE, containing about SEVEN HUNDRED ACRES of HIGHLY PRODUCTIVE LAND, together with the COAL ROYALTIES below, as proved by borings.

Applications, in writing, to be addressed, under cover, to ROBERT BLAND DIXON, Land Valuer and Estate Auctioneer, Darlington.

TO CAPITALISTS, AND OTHERS, F O R S A L E, a VALUABLE WELSH LEAD MINE, in a good mining district.

For further information, apply to Mr. FRED. OWEN, Tanyclawdd, Ruabon, North Wales.

F O R S A L E, a SUPERIOR 45-in. PUMPING-ENGINE, 10-ft. and 9-ft. stroke, without boilers. Apply to Captain TAYLOR, Balleswidden, St. Just.

RAILS, NEW, but slightly defective, from 30 to 82 lbs, suitable for COLLIERIES, &c., TO BE SOLD, very cheap.

Apply to BREYEN, RICHARDSON, and Co., Trinity Chambers, Newcastle-on-Tyne.

C U R W E N B R O T H E R S, IRON ORG MERCHANTS AND BROKERS, 33, HINDPOOL ROAD, BARROW-IN-FURNESS,

On the 17th of every month, price One Penny, the I N V E S T M E N T R E V I E W: A Monthly Record of COMMERCIAL AND FINANCIAL PROGRESS. Edited by JOHN ROBERT PIKE.

Investors and speculators will find in this Review much information not otherwise obtainable. The selection of dividend and progressive mines cannot fail to be wonderfully remunerative at present prices.

C

NOTICES TO CORRESPONDENTS.

•• Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

NICKEL AND COBALT.—"R. N." (Glasgow).—There are no means of ascertaining the annual consumption of either of these articles from official sources. The entire produce of nickel in the United Kingdom during 1870 was only 1/2 of a ton of ore, worth 27/-, according to the Official Return, although from 1/2 to 20 per cent. of the alloys, known as German silver, argentine, etc., &c., consists of nickel. The nickel ore imported is probably worth 20/- or 20/- per annum, but zaffre and spels are the chief forms in which nickel comes into the market. Nickel ores are saleable down to 2 per cent. produce, but in Norway, North Germany, and the Netherlands few ores are worked under 8 per cent. produce; it is extremely difficult, unless peculiar fluxes are at hand cheap, to treat low produce ores profitably. The fusibility of the metal in the ore has also a material effect upon the result. The presence of arsenic destroys the ductility of the nickel, and the metal is usually accompanied by that metal. "R. N." should state the produce and constituents of the ore he has to deal with, and advertise for tenders.

CERRO DE PASCO SILVER MINES.—A full descriptive article on this interesting mining property was published in the Supplement to the Journal of May 6, 1871. We are obliged to our Redruth correspondent for sending the extract from a local paper, but it is mainly a reiteration of that to which we refer.

HARMONY AND MONTAGUE.—The matters in dispute affecting this mine being under consideration in a Court of Law, we must decline inserting further letters upon the subject until those proceedings are closed.—"John Cameron"; "Another Shareholder"; "Vindex"; and "J. C. Bury".

Received.—"A Manufacturer" (Leeds)—"A. B." (Birmingham)—"J. Wilson (York)—"Reader"—"F. W. T."—"R. T." (Utah)—"Member of the Committee" "P. A."—"B. S." (Wigan)—"J. R."—"J. T." (Manchester)—"A Friend"—"Satisfied"—"Engineer"—"O. B." (Breslau)—"C. V." (next week)—"An Irish Shareholder."

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, MARCH 9, 1872.

THE GET AND THE WEIGHT OF COAL.

A month ago we called attention to a paper on the yield of our collieries, in relation to the specific gravity and cubical contents of the mineral *in situ*, that had just been read at a meeting of the South Midland Institute of Engineers, by Mr. D. W. LEES, mining engineer, the secretary. We did not attach any too much importance to the question at the time, and we are pleased to see that the President of the Institute, who is the Government Inspector of Mines for the district, regards it as simply momentous. Mr. BAKER has warned the colliery people of South Staffordshire and East Worcestershire that in dealing with so precious a mineral as fuel they are stewards, responsible not alone to the proprietors of the collieries, but also to the whole of Christendom. Civilisation, it may be, will be prolonged or curtailed by the manner in which they discharge their stewardship. Certainly the duration of the trading prosperity of their district very greatly depends upon them. And what is true of South Staffordshire and East Worcestershire is equally true of every other colliery district. In all these there are colliery engineers who need not to be told that a close watch should be kept between the original contents of the seams they work and the quantity that is brought to bank from those seams; but in every district there are, nevertheless, men who need to be reminded that such watchfulness is part of their duty. When, therefore, a Mines' Inspector urges the question upon the attention of the district immediately under his control, he urges it upon all the districts.

A brief record of what happened at the last monthly meeting of the Institute we have named, and that will be found inserted elsewhere, informs us that Mr. LEES' paper was re-read last Monday, when the discussion upon it was resumed. From the same source we learn what are pretty much the views upon the subject of those mining engineers in that basin who are the members of the South Midland organisation. They set down the small comparative yield when estimated by the cubical contents of their collieries in part to the difference in the weights that regulate the sales at the pit bank and the weights that are the outcome of the scientific measurement of the mineral lying in the earth; and in part, also, to difficulties of working, resulting from the character of the superincumbent and subjacent strata. Very much has been said at different times about the marvellous indifference that colliery proprietors in South Staffordshire have shown to the manner in which the quantity of mineral they sell is estimated; and many instances have been given in proof, but never any more striking or conclusive than those which were mentioned on Monday at the Wolverhampton meeting. The proprietor of a coal wharf in Birmingham sends his boat to a neighbouring colliery to be loaded; when the coal has been tilted in, the authorities at the collieries having gauged the boat, declare that it holds 22 tons, and 22 tons are paid for. Arrived at the wharf, the boat is unloaded, and its contents passed over the weighing machine. The boatload of coal weighs 34 tons! Again, a boat is gauged by the measurement of the colliery people themselves to hold 18 tons. It is loaded, and the load afterwards weighed. The purchaser has paid for 18 tons, but he has got 27 tons! Perhaps in no other colliery district in the kingdom could such transactions have occurred. We hope not.

We take it for granted, therefore, that the laxity in weighing that has prevailed in South Staffordshire is unique. But there are degrees of laxity. Outside Staffordshire, colliery proprietors and lessors are sometimes accustomed to make allowances that, like the greater evil in Staffordshire, have grown out of competition; but which, if proprietors and lessors were wise, would cease with the current opportunity. Than this there can be no better occasion for redressing all such malpractices. In South Staffordshire it is no longer possible to get 27 for 18 tons, or 34 for 22; but serious irregularities in the custom of weighing and measuring still exist there, which it is being now sought to remove. Such an arrangement as the adoption of statutable weights is believed to be possible of achievement at this very busy juncture; and it is being attempted to be carried out. Let us hope, therefore, that henceforth no difficulty may arise in the estimating of the product of a colliery by reason of the difference between the weights that tell us the quantity in the mine, and those that affect the entries in the ticket-book.

The difficulties of the roof and floor in a pit are those of nature. Every colliery worker knows well that a good roof and a good floor will enable him to get out his coal with a cleanliness not otherwise possible. Such a roof and floor Mr. LEES had in the case to which his experiments related. Yet he obtained from the 1 acre 1 rood and 20 perches—of an average thickness of 3 ft. 2 in., that his measurements satisfied him contained 6965 tons—only 4988 tons. Thus there was left in the pit 1977 tons, or at the rate of 1438 tons per acre. Was this necessary? Sad pity if it were. But the great point is—How far are other collieries affected by similar results? We fear that the ease to which Mr. LEES' paper refers is not the only one in that district that calls for enquiry. If the cases cited as to the extraordinary weights that at one time distinguished coal sales in South Staffordshire are startling, hardly less so will seem the instance quoted by Mr. GETHIN last Monday as to the economical results that have followed upon an alteration in the mode of working a colliery with which he is connected; where, by a change that he determined upon himself, he has secured for seven years in succession an increase in the output equal to 4000 tons per acre. The system pursued so far at present appears to get the coal as two distinct workings, leaving no pillars, and substituting for them a plentiful use of timber.

A paper upon the subject is to be brought before the Institute by Mr. GETHIN. We shall then ascertain exactly what was done, and shall have an opportunity of discussing the plan with all the information before us. Meanwhile, we congratulate Mr. GETHIN upon the issue, the more so because he took the step against the advice of everyone in any way connected with the pit, and even at the sacrifice of a former manager. Colliery engineers in South Staffordshire would do well to avail themselves of what we know to be Mr. GETHIN's readiness to show what he is doing to anyone in the trade. An inspec-

tion may, perhaps, satisfy certain of them that not only in reduced selling weights, but also in better working, there are means within their reach of more closely adjusting commercial yield and cubical contents. The whole question is of so grave import that it should have the fullest possible consideration. It is satisfactory, therefore, that another meeting of the Institute is to be given to it. We augur from the discussion the most satisfactory results.

THE SCOTCH MINERAL OIL TRADE.

Nothing is more wonderful in the brief but eventful history of the Scotch mineral oil trade than the constant unvarying success and steady development of works projected since Mr. JAMES YOUNG, the inventor of the description of paraffin oil which bears his name, planted his little manufactory at Bathgate little more than 20 years ago. In the interval many colossal fortunes have been made in this industry, that of Mr. Young's being, as it deserved to be, the largest and most noteworthy. It is true that paraffin oil does not yield to the producer the same enormous profits as of yore. The patentee's monopoly has been broken through, and free trade and competition have induced the inevitable result of cheapening this particular commodity. Besides, there is a very keen rival on the other side of the Atlantic, which has almost had as remarkable a history, and which has sprung as suddenly into a great industry, as the paraffin oil trade itself. Petroleum is now sold in Glasgow at 1s. 4d. and in London at 1s. 6d. per gallon, being only one penny dearer than the ordinary paraffin oil (which was selling about 10 years ago at 4s. per gallon), while it has the advantage of giving a clearer and more lustrous light. A comparative freedom from nauseous smell is another recommendation in favour of petroleum, which has thus established a strong rivalry with paraffin oils. Still the latter, for lubricating and other purposes of a cognate character, is often preferred to any other oil in the market, and so long as the demand continues at its present exceptional pressure, the production must continue to increase.

The West Calder Oil Company were among the first to undertake the distillation of oil from coal shale. In the year 1860 they acquired a large area of ground at Garside, about a mile distant from the village of West Calder, on the borders of Mid-Lothian, where they established works on a large scale. Previous to this date they had worked a small place at Crofthead, near Whitburn, where they had satisfied themselves as to the practicability of distilling oil from the shale coal that abounds in that district. Up to this period, it must be remembered, Mr. YOUNG had only distilled his paraffin oil from bog-head or other cannel coal, so that to the West Calder Company may be said to belong the credit of having been the first pioneers in the phase of oil distillation from shale which has since become so common. By their original contract the company undertook to lease 143 acres of ground, eight or ten of which is covered by their works and surface operations at West Calder. The pits are in the immediate vicinity of the works, so that there is no trouble or cost as regards carriage. Underneath there are four good seams of coal or shale, and others of an inferior kind, which, however, are capable of being worked to advantage. A valuable return of oil, both as regards quality and quantity, is obtained—the proportion being about 40 gallons of crude oil per ton of shale. The mineral surveyor whose services were brought into requisition originally estimated the amount of shale in the lease of ground taken by the company at 2,000,000 tons; but as the shale is from 3 to 4 fathoms thick, and only 15 fathoms from the surface, the actual yield of shale capable of being obtained by thorough and economical working will probably be much in excess of this estimate. The process of manufacture adopted at the West Calder Oilworks is in most essentials similar to that which obtains at other oilworks in Scotland. The shale is brought from the pits, distant from 200 to 300 yards, to the mill, where it is crushed up into small pieces before being put into the retorts for distillation. There are altogether nearly 200 retorts on the premises, the greater bulk of them being uprights. They are erected in the form of benches, with four retorts to each bench. The apparatus used to crush the shale is a simple modification of the ordinary Australian quartz-crushing machine, and consists of two hammers of about 18 cwt. each, which are raised alternately by cam-wheels, and allowed to fall on the mass of shale lying upon an iron grating 2 feet or 3 feet underneath. By this process, fully 80 tons of shale can be broken up in the space of 12 hours, or in an even shorter period.

It is the intention of the Calder Oil Company to greatly increase the extent of their premises, so as to enable them to double their present production. For this purpose an effort is about to be made to establish a limited liability company, with a capital of 160,000. Of this amount 80,000/- will go towards the purchase of old works, and the remainder will be appropriated to the extensions in contemplation. The extensions will take the form of increasing the number of retorts, and other appliances, in addition to the opening up of new shale pits, and the acquisition, if possible, of new territory. Of course the plans have not already been so far matured as to justify us in describing the arrangements in detail; but it is expected that, if the proposed plans are carried out in their entirety, the West Calder will be the largest works of their kind in Scotland. The company have every facility at their command for conducting a large and remunerative business. Not only are these premises situated in the very centre of the very richest coal field in Scotland, but excellent brick-clay can be obtained close at hand, which, when mixed with a large percentage of pulverised shale, yields a first-rate quality of brick. The company obtain their furnace coals from their own mines. The incondensable gas produced at the West Calder Works is utilised as fuel in the furnaces underneath the steam-boilers, and it exerts such a strong calorific power that very little coal is needed to supplement it. It may be added that the works of the West Calder Oil Company have easy access to all parts of the country. A siding from the Caledonian Railway runs into the works, and a perfect network of lines connects the various shale pits with one another and with the works. Upwards of 500 men are employed at West Calder at the present time, but when the contemplated extensions are carried into effect this number will be very largely increased.

AMERICAN IRON ORE.

An interesting paper has been prepared by Mr. J. W. FOSTER, on the iron ores of the district bordering on Lake Superior and the Iron Mountain region of Missouri. Mr. FOSTER states that the deposits are practically inexhaustible, while they are remarkably pure, containing but very little sulphur, phosphorus, or titanium. The bulk of the ore occurs under two forms—the specular or peroxide, containing 69-34 per cent. of iron; and the magnetic or protoxide, yielding 72-41 per cent. Comparing these ores with those of the most important mines of Sweden—Dannemora, Persberg, Narva, &c.—Mr. FOSTER considers that the balance is decidedly in favour of the American minerals. Thus, sulphur is so far present in Swedish ores that it has to be expelled by careful calcination, a process to which Missouri specular ores are never subjected; the average yield of iron from Swedish ores is thus reduced to about 50 per cent. While admitting that Swedish iron must always command a high price in the markets of the world, Mr. FOSTER contends that Lake Superior and Missouri ores are to be preferred to those of Sweden, from their freedom from sulphur, so that they require no calcination, and also from their greater freedom from silicious matter, there being a difference in their favour on this latter head of about 15 per cent. In addition to the ores already mentioned by Mr. FOSTER, there are in the Lake Superior and Missouri districts large deposits of brown hematites (hydrated sesquioxides), yielding nearly 60 per cent. of iron; these are just the ores required for admixture with the specular and magnetic ores, and they are equally free from noxious ingredients; they are, in fact, the result of the decomposition of the former ores, taking into their composition nearly 14½ per cent. of water. Manganiferous ores also occur in the Lake Superior district, and they are expected to be found in Missouri and Arkansas; this class of ore is essential to the production of spiegeleisen.

After the opening of the Lake Superior mines, the ironmasters of Northern Ohio and Western Pennsylvania found that it was more economical to use a pure and rich ore from a distance than a lean and impure ore from the immediate neighbourhood of their furnaces; and the production of Lake Superior iron ores has consequently been

rolling on at a great rate during the last ten years. Thus, while production in 1861 was only about 54,000 tons, it exceeded 800,000 in 1871. The increase in the consumption of the Iron Mountain ores of Missouri has also been very remarkable. The civil war of 1861 depressed the energies and disturbed the industries of the Missourians; but since the restoration of internal tranquillity in the United States the production of Iron Mountain ores has been rapidly increasing, and Mr. CHONTEAU estimates the yield of Missouri ores for the year at 350,000 tons. These two totals of 800,000 tons and 350,000 exceed—the whole production of pig in the United States in 1871. The furnaces in the Mahoning valley of Ohio, and in the Chemung, Dover, Toledo, Detroit, and Brazil are the principal consumers of Lake Superior ores. At Buffalo, anthracite coal from Pittston is used for their reduction; at Pittsburgh the ironmasters employ not only the coal in their vicinity, but also that on the Connellsville road, 60 miles distant, both of which must be reduced to coke before being used. In the Mahoning and Chenango valleys the ironmasters obtain coal which is employed in a crude state for iron smelting. At Cleveland they use coke obtained from the Pittsburgh district; at Toledo and Detroit they use charcoal largely; and at Brazil they use coal in a crude state.

All these details may be regarded as highly interesting from a metallurgical point of view, but still the fact remains that the United States are far from supplying their wants in the matter of iron. On the contrary, they have to import very largely from Great Britain, from which quarter of the world they received in 1871, 188,133 tons of pig-iron, against 113,980 tons and 132,485 tons in 1870 and 1869 respectively, the various descriptions of finished iron being also obtained from our shores as follows during the last three years:—

IMPORTS OF BRITISH IRON INTO THE UNITED STATES.		
Description of iron.	1869.	1870.
Bar, angle, bolt, and rod ... Tons	54,660	50,538
Railway.	299,194	421,824
Hoops, sheets, and plates.	33,345	39,228
Cast or wrought.	10,352	9,661
Total.	397,583	519,251

Perhaps it will be convenient to combine together the imports of British pig and iron into the United States in 1869, 1870, and 1871, to obtain a more exact view of the imports of iron;—

IMPORTS OF BRITISH PIG AND IRON INTO THE UNITED STATES.		
1869.	1870.	1871.
Pig. Tons	188,113	113,980
Iron.	297,583	519,251
Total.	585,696	633,251

A great deal more Missouri and Lake Superior minerals can dispense with British iron.

OUR DIFFICULTY TO MEET THE PRESENT DEMAND FOR IRON.

With the present extraordinary demand for iron, coal, and ironstone, which, from all we can learn, is likely to continue for years, baffling as it does all efforts to meet it by present sources of supply, any sound undertakings offered to the public should be received with confidence, as tending not only to enrich the investors, but likewise increasing the prosperity of this country in an exact ratio with the larger amount of iron which these undertakings enable Great Britain to supply for the consumption of the world's demand which is now pressing upon us. Our make of iron last year was 6,500,000 tons, and when the new capital in course of investment is brought into iron-producing results there is no reason why 9,500,000 tons may not be turned out, returning an excessive aggregate profit to the nation of one-third more, which would be in round numbers upwards of 4,000,000/- sterling on pig-iron, or if manipulated into bars, plates, rails, and Bessemer steel rails the extra profit upon the extra 3,000,000 tons will be no less than 10,000,000/- sterling per annum, all being clear gain to this country.

Mr. JAMES MELISS STUART, of George-street, a well-known wealthy merchant of the City of London, has sold his Welsh estate at Neath to a company for 103,000/-: its value in minerals and coal is well-known to the Welsh ironmasters and the trade generally. This estate contains 1300 acres of freehold land, and all the valuable coal and ironstone measures of the South Wales basin. A highly respectable proprietor have formed themselves into a company. Capital 155,000/- in 31,000 shares, of 5/- each. Mr. STUART has deposited Consols in the Bank to secure 7 per cent. interest on the paid-up capital for the first four years from the date of deposit, and from what we know of this property we believe it to be one of the best investments at present offered in any iron concern. It is only four miles from the shipping port of Neath. Tramways already laid down, levels open, and with the mineral riches it contains, whether worked for the mines and coal, which can readily be sold to the great ironworks round it, or if furnaces are erected for iron-making purposes, it appears to us, taking into account that no royalties will have to be paid, but on the other hand a large surface rental will accrue to the company from the tenant farmers now on the estate, at the present price of iron, and proper management, a profit of 25 or even 30 per cent. per annum will be realised by the working of this estate to those who invest in it.

COAL IN SWEDEN.—Considerable interest is felt in the Oreund district in consequence of the very successful results achieved by Kropf's Company in connection with their borings for coal. The boring at the date of the latest advices had reached the depth of about 195 yards from the surface, and 12 seams of coal had been passed through, many of them of ample thickness to repay for profitable working; indeed, the three last met with are 3 ft. 4 in., 1 ft. 3 in., and 8 ft. 3 in. in thickness respectively, and it is now proposed to open the mines under the superintendence of competent English colliery engineers. For several days the coal field at Rans has been a great attraction to the engineers of neighbouring districts, and the visit of a professor from Lund University to examine the boring and report upon the economic value of the coal is anxiously looked forward to. In another column an advertisement will be found inviting contracts for working and bringing the coal to surface.

TIN-PLATES.—The exports of tin-plates from the United Kingdom appear to have acquired a considerable development in January, having amounted in that month to 149,496 cwt., against 98,993 cwt. in January, 1871, and 98,922 cwt. in January, 1870. The exports to the United States showed a large increase in January, having been 99,223 cwt., against 72,691 cwt. in January, 1871, and 68,007 cwt. in January, 1870. British America took 67,100 cwt., against 122 cwt. and 270 cwt. respectively; and Australia, 63,536 cwt., 61,942 cwt., and 38,132 cwt. respectively. The value of the tin-plates exported in January was 196,734/-, against 118,483/- in January, 1871, and 117,220/- in January, 1870. The value of this branch of our exports was annexed during the ten years ending with 1871, inclusive:—1862, 1,212,665/-; 1863, 1,309,673/-; 1864, 1,263,246/-; 1865, 1,481,092/-; 1866, 1,896,192/-; 1867, 2,060,410/-; 1868, 2,092,668/-; 1869, 2,304,820/-; 1870, 2,362,872/-; and 1871, 2,900,610/-.

SHAFT SINKING BY LARGE DRILLS.—An improved method of sinking shafts by means of large drills has recently been introduced in America by Mr. HUGO SONTAG, of St. Louis, who first sinks a hole some 2 ft. diameter, which he keeps from 60 ft. to 100 ft. in advance of the main shaft, and into which the debris from the large hole is drained. The apparatus is worked on the free-fall principle, and a drill shank connects the drill frame with a

anism to operate, and allow the bits to strike a sharp blow on the rock. In order to prevent the breaking or bending of the bits from the side blow of the inclined edges, struts are added and held down by screws. There are keys also to prevent the bits from being forced inwards. There is a cross bar with small bits to guide the apparatus and perfect the walls of the shaft. The strong construction of the drill frame gives considerable weight to the apparatus, and causes the bits to strike a powerful blow on the rock at each fall, while the sloping of the bottom, and the drainage into the smaller hole always keep a clean rock surface for them to strike against, so that the blow is extraordinarily effective. The inventor claims that it is at least twice as effective as when the bottom of the hole is not clean. Mr. Sontag employs Kind's tubing, without any modifications. It is so well adapted to the purpose for which it is used that improvements seem impossible. To bore a shaft in this way two engines are required, the one a single acting and the other a hoisting engine. A foreman, an engineer, a fireman, a blacksmith, and four workmen are the force required to carry out the work.

REPORT FROM CORNWALL.

March 7.—The good auguries of our last report have been fully realised. The weather has definitely improved, and the tin standard has advanced 4*l*. The water in the flooded mines is being rapidly reduced, and general activity will speedily prevail in the most affected localities, where the return of tinstuff has for some few weeks been almost at a standstill. There is no prospect of the market being glutted with black tin for some little time to come. One wary manager down West had kept his produce safely stocked in his hatches, and now reaps the reward of his foresight. Doubtless more would have followed his example if they had had the chance. The prospects of tin mining just now look almost more favourable than ever, and the last cloud in the horizon, that which arose out of the Alabama difficulty, is being rapidly dissipated. There is more than a prospect that the high prices will induce the resumption of several more abandoned sets, with almost an absolute certainty of a good profit. Treleigh Wood has proved a great incentive to enterprise. The way in which the former workers carried on their operations at that mine appears to have been simply to pick out the richest parts of the lode, said to be the largest in the county, leaving the bulk, good paying stuff, still standing. But then they had not the advantage of fire-whims and fire-stamps. The one puzzling point about the new concern is where the men are to come from. The mines at present in operation are undermanned. We are glad to notice that the difficulties in the St. Just district have been got over in the right way, and that the men have returned to their work, consenting to give up Maze Monday.

The announcement in our report of the week before last that blast-furnaces were about to be erected at Fowey in connection with the development of the Perran iron lode has caused no little excitement in the county. The announcement was so unexpected that there seems to have been a very wide-spread feeling that the news was too good to be true. The point was mooted at the Lostwithiel and Fowey railway meeting last week, and the fact fully confirmed by the Chairman, who, however, cautiously refrained from pledging himself to the exact site of the smelting-works. Had our information been less exact than it was there need have been no hesitation on the part of anyone acquainted with the county in pitching upon Fowey as the right locality. The object, in the first place, would, of course, be to avoid, if possible, land carriage for the coal, and this, in conjunction with the necessity that the iron in one shape or another should be brought to a port for shipment, narrows the choice of sites to the three harbours in connection with the new railway system—New Quay, Par, and Fowey. The superior advantages of the deep water and protected harbour of the latter are unquestionable, in addition to which it has the further great merit of having the most ready access to the chief source of lime in the two western counties—the great limestone bed of Plymouth. It is felt on all hands that if this gigantic scheme fulfils expectations the county will be revolutionised, and it is in such good hands that if it can be made to succeed it must certainly will.

Mr. J. H. Collins, F.G.S., has just published an interesting narrative of the successive mining schools of Cornwall. The first attempt to supply the evident want of scientific instruction for the miners of the county was, it appears, made by the late Sir Charles Lemon—a gentleman who, like many another Cornish worthy, never forgot what he owed to mining. In 1838 he commenced the work of establishing experimentally and maintaining at his own cost for two years a mining school, with a staff of competent professors, which was attended with a very fair amount of success. Sir Charles then went further, and proposed that a mining college should be erected at Truro, at a cost of £10,000, and that its expenses should be defrayed for 12 years by a tax of a half-penny in the £, sterling, levied upon all metallic materials throughout the country. After the expiration of that period other means of maintenance were to be found. If this was done Sir Charles offered to give the site, £50, towards the building, and at his death 10,000*l*, or necessary 20,000*l*, as an endowment. He, however, attached the condition to this most liberal offer that the college should be essentially a Church of England establishment, though with perfect freedom of action for dissenters, and complete academic equality among the students. The "religious difficulty," with which we have been so familiar of late, wrecked their promising scheme, and 12 years elapsed before anything more was done for the technical education of the miners. In 1853 the matter was again taken up by the Royal Institution of Cornwall, which had always had it at heart, and in 1855 the second mining school was established. It collapsed in 1858, but in the same year a third effort was made, and evening classes started at Camborne and Pool. In the same year Mr. Robert Hunt, F.R.S., Keeper of the Mining Records, laid before the Polytechnic Society his project to found the present Miners' Association of Cornwall and Devon. In October of the following year the proposal bore fruit in the actual establishment of the association. It has been at work ever since, amidst a good many difficulties, with an abundant and most encouraging amount of success, and is now doing yeoman service under the active and able superintendence of Mr. Collis himself.

TRADE OF THE TYNE AND WEAR.

March 7.—The Coal, Coke, and Iron Trades continue very good but it is considered by some engaged in the iron trade that there are signs of a lull. The prices are now so very high that some effect has been produced on the demand; it is, therefore, possible that the wonderful tide may reach its full height soon. It must be considered that one reason for the extreme prices of coal now current is, without doubt, the greatly diminished production, for as the men have greatly advanced wages the quantity of coal, &c., turn out is reduced, and thus a scarcity is induced which was never before known here. There is still considerable difficulty in getting manufacturing coal, &c., to keep many of the works going. But, on the whole, the demand for export is much more quiet than it has been for a long period; and, as remarked above, there are signs of a lull in all events. There has not been so much business done lately in the export trade, and the railway traffic of the district has not been quite so good either lately. Of course the opening of the Team Valley branch and the Jarrow branch of the North-Eastern Railway has greatly relieved the traffic on the old main line.

A bore-hole has been put down near Whickham, not far from the site of very ancient coal workings; and a seam of coal, 3 ft. in thickness, has been found. It is, therefore, intended to sink two shafts for the purpose of working this seam. Although coal has been worked here in very ancient times, the workings only extended to the seams near the surface, and the lower seams have not been worked; indeed, it has been considered for many years that the coal seams here were seriously disturbed by faults, and many papers have been published on this question in the Journal, the writers in some cases having attempted to trace the seams from Marley Hill to Blaydon, &c., with more or less success. The winning referred to will, therefore, attract much attention, as it will tend to clear up the question of the position of the coal seams throughout a considerable tract of country; and should the venture prove successful it will, no doubt, lead to other coal workings.

THE DURHAM COAL MINERS, THE YEARLY BOND, &c.—An important meeting was held on Saturday, at the Coal Trade Office, in Newcastle, for the purpose of discussing those important questions, the chair was occupied by Mr. Hugh Taylor, and there was a large attendance of colliery owners and agents, and eight delegates attended on behalf of the men, headed by Mr. Crawford, their president. It will be recollect that it was agreed at a previous meeting that the yearly bond should be abolished; and was the first important question to be discussed at this meeting was a agreement which should be entered into instead. The masters proposed a fortnightly agreement, but this was strongly objected to by the delegates, who any meeting Sunday. After some discussion, this was agreed to. The next

question discussed was the advance of prices, and the delegates requested an advance of 3*l* per cent, on the prices of April, 1871. The masters objected to this most strongly, as being too great a rise, and the delegates proposed to take the average prices in Northumberland and South Yorkshire as a base; but this, for obvious reasons, could not be agreed to. The masters, however, offered an advance of 2*l* per cent, on all prices paid in April last; and they strongly urged the delegates to meet them in a spirit of conciliation. As the delegates were not authorised by their constituents to make any agreement failing the acceptance of their offer, no further progress was made in settling this very important question; and many other questions also remain in abeyance. The hours of the boys, the "ruk" of the putters (this is a technical term, which means the distance the putters have to work the wagons at a given price), the establishment of a uniform system of keeping accounts, &c.

The offer of the masters to give an advance of 2*l* per cent, on the prices paid in April last appears to be very fair and even liberal, and there is little doubt that this offer will be accepted, although the delegates had no authority on Saturday to accept any definite offer that might be made. It must not be supposed that this advance is upon the prices paid at present—it is upon the prices paid in April last, and this really means no advance at all on the rates which are at present paid at many works, for fully an advance of 2*l* per cent, and in some instances 3*l* per cent, have been made at some works since the period named. There are, however, works where there has been comparatively little advance, and at these places the advance will be considerable. There are many other questions, as observed above, which will require to be settled shortly. The proposal to take the average of the earnings of the hewers in Northumberland and South Yorkshire was not favourably received by the employers; that would, indeed, open out a wide question, and the basis proposed to be taken must certainly be objected to, as the coals in the districts referred to are not only entirely different as to hardness and content difficult in working, but also as to value in the market; so that it would be manifestly unfair to make any comparison on this head. In Northumberland and Yorkshire there are coals where a man in a given time can only get half the quantity he can do in the same time in Durham, and, as remarked above, the value of the coals is not the same in those districts.

THORNLEY COLLIERIES.—There was a demonstration of miners employed at the collieries in the neighbourhood of Thornley against the annual bond. After the speeches, a silver snuff-box was presented to Mr. H. Davison, of Thornley, subscribed for by the tradesmen and miners of Thornley, for the services and good advice he had given to the miners. Mr. J. R. Winn, was also presented with a silver tobacco-box by the tradesmen and miners of Thornley, for his services as secretary for the district. It was moved by Mr. J. R. Winn, and seconded by Mr. J. Bolland, "That a hearty vote of thanks be given to Mr. Cooper, viewer, Thornley, for the many kindnesses he had done them, and for having lent the school-room to hold their tea in." Moved by Mr. R. Richardson, and seconded by Mr. T. Renwick, "That we disapprove of the remarks made by Mr. George Elliot, M.P., in the House of Commons as regards the safety-lamp and the present system of weighing coal in this county."

NORTHERN INSTITUTE OF MINING AND MECHANICAL ENGINEERS.—At the meeting of members, held in Newcastle on Saturday last, there was a good attendance, the chair being filled by the President, Mr. Edward Boyd. After the election of new members and other routine business was disposed of, a very able and interesting paper was read by Mr. G. Fowler, "On the Scroll Dram." [This paper was published in the Supplement to last week's *Mining Journal*.] The paper shows that when this drum is in use, and is properly placed, it is not only safe, but also more economical than other drum.

The paper of Mr. Hall, "On the Settling-time Pumping-Engine," and that of Mr. E. Baldwinbridge, "On the Difference between the Statical and Dynamical Pressure of Columns of Water in Lifting Sets," formed the ground work for a very interesting and instructive discussion, in which the various modes of constructing engines for pumping water were discussed—the Cornish pumping-engine, the direct-acting, pumping with the use of a fly-wheel, &c.

Mr. Burdon Sanderson, Chairman of the Newcastle Water Company, took an important part in the discussion, and gave many curious details respecting the working of pumping-engines, alluding particularly to the use of air vessels in working large engines, which have the effect of preventing fractures of pipes and joints. In conclusion, he promised to contribute a paper in further elucidation of the subject, to be read before the Institute at a future time. This discussion was ultimately adjourned. The discussion on the paper of Mr. Lewis, "On Working Long Wall," was also postponed until next meeting.

REPORT FROM LANCASHIRE AND CHESHIRE.

March 7.—There is still an upward tendency in the prices of coal, owing to the scarcity of supply, but the masters are developing their resources to the utmost, and there seems to be a general opinion that a turn in the rates will not be long delayed. Some of our colliery proprietors have not received so much benefit from the high prices as might have been expected, for a little while ago—and especially during that period when the Welsh strike sent an immense number of orders into the district—contracts which have not yet expired were entered into, and cases are mentioned in which these take nearly the whole of the output of the collieries. The extension of the mining works has naturally led to a very extensive demand for the manufactured iron required at collieries, and all the establishments in this branch are in full operation, and indeed are overstocked with orders. Many makers are now only accepting orders at prices to be fixed by them when the iron is ready for delivery. From Barrow it is reported that orders are numerous for all kinds of finished material. America continues to be a good customer for railway iron, and it is expected that shortly the requirements of the South Sea Islands will be of an extensive character. The Continent is taking large consignments of both iron and steel. There have been several finds of ore in the district, and these are of a character and quality that can be worked remuneratively.

The getting of rock salt by machinery has been commenced at the extensive works in Norwich belong to Mr. Heyes. One of the coal-cutters, patented by J. S. Walker, of Wigan, which has already been described in the Journal, commenced work there on Tuesday, and has so far given every satisfaction.

At a meeting of miners of the Oldham district, on Friday, a resolution was passed condemning the 28th clause of the Bill. It was held that if men engaged in a mine were to make reports as to the condition of the mine they would be influenced by the masters, and it was suggested that the choice of inspectors from the workmen should not be confined to a particular mine, but should extend over the district in which the mine is situated. A resolution was passed pledging the meeting to agitate in favour of eight hours as a day's limit, which was also carried.

This eight-hours question is to be discussed at a great conference of miners from all parts of the county of Lancashire, to be held in Wigan during this month. All attempts to introduce the system into this district have hitherto failed, because the men in the various coal fields did not support each other, and this is an attempt to obtain a general movement. The masters generally will not object if the men will only work more regularly.

REPORT FROM SCOTLAND.

March 6.—The warrant market has been very strong since the date of my last report, and a good business has been done at steadily advancing prices; the price on Wednesday morning was 77*s*, and on Friday afternoon 78*s*. 6*d*. On Monday and yesterday a fair business was done from 78*s*. 9*d*. to 79*s*. 9*d*. closing at the latter. To-day the market opened firmly at 79*s*. 9*d*. cash, and advanced to 80*s*. 3*d*. cash, and 80*s*. 10*d*. one month, closing with buyers at these prices. The shipping returns are again excessively large, and as the demand from Germany, the United States, and Canada still continues, a decided advance has taken place in all shipping brands, as will be seen from the following quotations:—

	No. 1.	No. 2.
Gartsherrie at Glasgow (deliverable alongside)...	98 <i>s</i> . 0 <i>d</i>	84 <i>s</i> . 6 <i>d</i> .
Coltness ditto	ditto	98 <i>s</i> . 0 <i>d</i>
Summerlee ditto	ditto	97 <i>s</i> . 0 <i>d</i>
Carbrooke ditto	ditto	92 <i>s</i> . 0 <i>d</i>
Monkland ditto	ditto	88 <i>s</i> . 0 <i>d</i>
Clyde ditto	ditto	85 <i>s</i> . 0 <i>d</i>
Govan, at Portmcleaw ditto	ditto	82 <i>s</i> . 6 <i>d</i>
Langloan, at Port Dundas ditto	ditto	92 <i>s</i> . 0 <i>d</i>
Calder ditto	ditto	98 <i>s</i> . 0 <i>d</i>
Glengarnock at Ardrossan ditto	ditto	94 <i>s</i> . 6 <i>d</i>
Eglington ditto	ditto	85 <i>s</i> . 0 <i>d</i>
Caron at Grangemouth ditto	ditto	85 <i>s</i> . 0 <i>d</i>
..... ditto (selected) ditto	95 <i>s</i> . 0 <i>d</i>	—
Shotts at Leith ditto	ditto	97 <i>s</i> . 0 <i>d</i>
Kinnel at Boness ditto	ditto	91 <i>s</i> . 0 <i>d</i>
Bar iron £10 10 <i>s</i> 0 <i>d</i> to £11 0 <i>d</i>	.....	8 <i>s</i> . 9 <i>d</i>
Nail rods 11 0 <i>d</i> 0 <i>s</i>	.....	—
SHIPPMENTS.		
For the week ending March 2, 1872.....	Tons 16,951	8,938
" March 4, 1871.....	.....	—
Increase 8,353	.....	—
Total increase since 25th Dec., 1871.....	35,764 tons.	—

The persistence with which prices in the Pig-Iron Market are being maintained is communicating a strengthening effect to those of Bar Iron, the enquiries for which are becoming more numerous, both for home and foreign customers. This was quite to be expected, in the face of the advance of the raw material; and although there is as yet no quotable change in prices, another advance may take place without much warning. This latter reason is, perhaps, the inciting cause of the enquiries, as buyers are beginning to fear that a longer delay may place them in more disadvantageous circumstances. The works have all their machinery in full operation, makers are more cheerful, and the dispute between the masters and men employed in the engineering and shipbuilding trades have been settled, by a mutual agreement to postpone the 51 hours till Nov. 1. The brassfounders have not yet arranged terms with their employers. An order for malleable iron tanks, &c., for nitre manufacture in South America

has been taken at a good price by Mr. Wilson, of Lilybank Works; and a good line or two has been booked for pipes and railway chairs. The bolt and rivet trade is very brisk, and we believe that Messrs. Reed and Lander (Port-Glasgow) have acquired ground for increasing their rivet works.

The continuous demand for Coal for the ironworks, as well as for shipment, coupled with the diminishing of the output through the reduction of the hours of labour, has hardened the prices of all kinds of coal, and which will prevent the likelihood of wages being reduced for some time to come. Buyers for spring shipment have thus had to pay the advance, as the article was needed, and the prospects in the meantime were against them. For the week ending yesterday the returns show heavy shipments as compared with the same week last year, but it should be observed that this week's return includes the whole of the shipments from the port of Ayr for all last month, and the shipments from Troon were large during the week, which brings up the total to 52,346 tons, against 25,974 tons in the corresponding week of last year. F.o.b. in the Clyde, at Broomielaw, quotations are—Main, 9*s*, to 10*s*; splint, 10*s*, to 11*s*; burnt coal, 12*s*; coke, 27*s*, per ton, less 5 to 2*l* per cent, according to quality and arrangement.

The Messrs. Baird, of Gartsherrie Works, have built, or are in course of building, additional calcining kilns at their ironstone pits, near Dalry, in Ayrshire; and the Coltness Iron Company have commenced to lay a line of railway from their works at Hallraig, Carlisle, to join the Caledonian.

Messrs. Merry and Cunningham are sinking new pits in the vicinity of Dalry; in a field near Carlisle Railway Station borers are prospecting for coal, and in the same parish three pits are being sunk for coal at Law, and one at Mayfield for ironstone.

At the Institution of Engineers and Shipbuilders in Scotland meeting Mr. J. E. Scott, of Greenock, read a paper upon his new method of constructing iron and composite ships, in which, by an arrangement of longitudinal framing, greater strength is obtained, and the cost of construction reduced. The method, as applied to iron vessels, consists in having the frames placed longitudinally instead of transversely, the outside plating being longitudinal strakes, as at present. The paper contained several elaborate tables, showing, by comparison, the effective cross sections of transverse and longitudinal framed ships, and of resistance to bending, &c. In the arrangement for composite ships the framing is similar to that adopted in longitudinally framed iron ships, but the outside wooden planking is placed diagonally. At the same meeting, Mr. R. Brown, manager of the Shotts Iron Company, explained and exhibited to the members his patent safety-lamp, and compared it with the Davy and Clanny lamps. Mr. Brown's arrangement (as formerly explained in the *Mining Journal*) consists in surrounding the light by wire gauze, as in other safety-lamps, but with the addition of a reflector and lens the light is greatly intensified. By means of this lamp parts of the mine can be illuminated, and the miner be at work a considerable distance from the source of light.

REPORT FROM MONMOUTH AND SOUTH WALES.

March 7.—The position of the trade may still be described as most satisfactory, at least as far as the demand is concerned, and for aught that can be seen at present it will continue so throughout the year. All the ironmaking establishments are working the fullest possible time, and the large exports of railway and other iron which have been effected of late clearly show that very considerable quantities are turned out as the result of the activity to be witnessed. The great question debated in the minds of the ironmasters is how to meet the large demand for iron which they are looking forward to, as it may be truly said all departments are even now tested to the utmost to turn out the quantities of rails, bars, and plates, &c., required. The season is now quite near when shipping becomes practicable to all the northern ports, and purchases on account of the northern States of America and Canada may be expected soon to be freely made. Manufacturers are, therefore, pushing forward as much as possible the completion of all winter contracts, and several thousands of tons have been cleared to the southern ports of America during the last ten days. Besides the American and Canadian demand, inquiries have been made for a price to be paid for railway iron for New Zealand and other anti-podesian markets. With such prospects before them makers can well maintain prices with firmness, and 8*s*. 10*s*. to 9*s*. per ton is now obtained without difficulty at the works for rails. Home business remains much about the same. The commodities chiefly turned out for home purposes are bars and plates, for which prices are high, but there has been no further advance. The enquiry for pig iron, if anything, further increasing, and quotations have again enhanced.

Coke and other fuel are in pressing request, and there is still much difficulty in getting adequate supplies. Prices are high, and firmly maintained. Tin-plates continue in good demand for America, but in other directions the enquiry is not equal to what was expected, owing to the high quotations. The works are in full employ.

Since last week there has been, perhaps, more activity in the Steam Coal Trade than for several weeks previously. The colliers are now working with greater regularity, and, as a matter of course, the supplies of coal have increased. From nearly all the markets, home and foreign, the accounts receive continue of the most satisfactory character, and it is evident that there need be no doubt as to the prosperity of the steam coal trade for a long time to come. The high quotations which have been current for some weeks are fully maintained. House coals being largely used in mixing with steam qualities are in tolerably brisk request, which is particularly gratifying, considering the mildness of the winter. For domestic purposes there is a falling off in the purchases beginning to take place. Prices for house coals are also high.

The Rhymney Iron Company has declared a dividend at the rate of 1*s*. 18*s*. per 50*s*. share and 10*s*. 6*d*. per 1*s*. 1*d*. share for the past half-year. This is at the rate of 7 per cent. per annum.

matters, and it was resolved, in order to meet the great increase of the coal trade, that docks should be erected at Port Tennant for the exclusive use of steamers frequenting the port, and which would prevent to a great extent the over-crowding in other parts of the harbour, which is so great an impediment to trade. Other ports are moving, and in all directions there are indications perceptible that the great iron merchants, colliery proprietors, and traders generally recognise the responsibilities which attach to them, and willingly second the efforts of the Great Western Railway in doing all in their power to still further develop the unlimited mineral resources of the South Wales district. The Great Western have too long ignored the requirements of Wales, but we hope the narrow gauge which they are now laying down will prove to them (what we have long since contended for) that their truest policy is to foster and encourage the development of the extensive coal basin of Wales, for in proportion as it is worked so will other branches of trade expand, and future dividends of the railway be benefited.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

March 7.—The Iron Trade of South Staffordshire is in a very unsettled and, on the whole, unsatisfactory condition. With a plentiful supply of orders, and quotations firm at the high standard of 12s. per ton for bars, it is asserted by men of experience that the producers, as a rule, are making less profits than they were some months ago, when the demand was not particularly buoyant, and when the nominal quotations for bars was only 9s. per ton. This anomalous state of affairs arises from the great and continued scarcity of fuel, in consequence of which many of the ironworks are only in partial operation, and also to the custom so prevalent in this district of accepting contracts for forward delivery at remote periods. Many orders now in course of completion were accepted eight or nine months since, when labour and material were obtainable at a great discount on their present values. In regard to material it is possible to cover risk by long contracts, but this precaution is not always taken. To labour the rule, of course, does not apply. It is, therefore, not difficult to understand the statements freely made on "Change this week that numbers of the mills and forges in the district just now, so far from yielding any profit to the owners, are being worked at a positive loss, and must continue to be so until the old contracts are entirely cleared off. In consequence of the dearth of fuel one or two blast-furnaces in the Black Country are being blown out. Best pigs made from native stone are 5s. 5d. to 6s. 10s. per ton; and cinders, 3s. 15s. to 4s. per ton. Foundry pigs have further advanced 5s. for hematite, and 5s. for H.C.M., and annealing cans are also 10s. per ton higher. In the finished iron department the quotations of the week are:—Bars, 10s. 10s. to 12s.; cable iron, 11s. to 12s.; rivet iron, 12s. to 14s.; angles, 11s. 5s. to 12s. 10s.; hoops, 12s. to 13s. 10s.; sheets (single), 12s. 10s. to 14s.; ditto (doubles), 13s. 10s. to 15s.; ditto (Lattens), 15s. to 16s. 10s. per ton.

The suspension of Messrs. Onions, of Oldbury, has been officially announced. The liabilities are small (not exceeding £550), and a favourable liquidation is expected. The failure is attributed to the great advances in wages and material, the firm having booked heavy contracts at the quotations prevailing six or eight months ago.

The coalmasters throughout the district are totally unable to supply the requirements of their customers, owing to the great irregularity of work on the part of the colliers. The concessions already made in respect of the hours of labour have considerably reduced the aggregate yield of coal in the district; and should the further concession demanded by the men be granted a further advance of 1s. on coal and 1d. per ton on slack may be expected. Considerable supplies of coal are coming into this district from North Staffordshire and South Wales. Some of the coal received from North Staffordshire is pronounced so inferior for forge purposes that the puddlers decline to use it. Ironstones are firm at 18s. for raw, and 28s. to 27s. for calcined.

In the North Staffordshire district the ironmasters are all well supplied with orders both for pigs and finished iron, but the market is somewhat unsettled by the scarcity of fuel and other circumstances. For pigs the quotations range from 3s. 10s. to 4s. per ton, according to brand. In No. 1 finished iron branch hoops are 12s. to 12s. 10s.; sheet plates, 12s. 15s. to 13s. 10s.; and angles, 12s. 10s. to 13s.

It is stated on what appears to be good authority that the competition of the Belgian ironmasters is beginning to be felt in the iron districts of Staffordshire. Local consumers can purchase certain descriptions of iron from Belgium at a reduction of 10s. to 25s. per ton on the South Staffordshire list.

Messrs. Edwin Lewis and Son, of Wolverhampton, have just completed the erection of a new tube factory at Fittington. This factory will be devoted exclusively to the manufacture of boiler tubes, the demand for which throughout the district is just now unprecedentedly great.

The general demand for hardware in the Black Country is steadily sustained, but the buoyancy is somewhat less than we were able to report a few weeks ago. The workshops and factories are all in full production, except where labour disturbances have resulted in strike and lock-out, as is the case with the nut and bolt trade, and one or two other industries.

DUDLEY MINING INSTITUTE.

The South Staffordshire and East Worcestershire Institute of Mining Engineers' monthly meeting was held on Monday, in the Museum, Dudley, the President, Mr. Henry Johnson, in the chair. There were also present—Messrs. W. Blakemore (vice-president), W. North, T. Latham, J. Hughes, J. Cole, D. Plant, T. Checkley, W. Spruce, W. H. Hall, G. Spruce, D. Rogers, S. B. Ensell, G. Taylor, J. Meacham, J. Dunn, E. Lealan, R. Turnley, G. Williams, R. Haines, H. Reynolds, J. M. Fellows, T. Lloyd, B. Culleen, W. H. Fisher, J. Rogers, S. Spruce, J. Ritson, J. Williams, R. Latham, W. Y. Hayward, W. Turner, J. Field, T. Parton, W. Hartshorn, J. J. Reynolds, W. R. Powis, W. Davis, J. James, J. Hancock, I. Williams, J. Williams, J. Getting, D. Peacock, and H. Johnson, J. (sec.).—Mr. Richard Turnley, Netherton; Mr. D. Plant, Pensett; and Mr. Brittain, of Walsall, were elected ordinary members; and Mr. W. Mad. Iyan honorary member.—Mr. B. Marten, C.E., Stourbridge; Mr. W. Davis, M.E., Bilston; and Mr. Whitehouse, M.E., were proposed ordinary members.

The consideration of the Mines Regulation Bill was then proceeded with. It was thought by many members that the proposed plan of giving colliery managers certificates of ability after they had passed an examination should be modified or explained in more definite terms. An employer appointed as his manager a man he could depend on, and it would frequently happen that a literary manager who had successfully passed his examination would not be nearly so good a manager as a practical one. The President explained that the Bill now included coal mines, stratified ironstone mines, shale mines, and mines of fire clay. Upon section 5, which relates to boys between ten and twelve, it was agreed that there was so much difficulty in providing for their education, &c., that the best plan would be to decline to employ them, although there was a chance of the boys being drafted into other trades. The President then read the new clauses, which reach from 20 to 31 inclusive. He said the council of the institute had been discussing the Bill all the afternoon, and they had failed to discover with a certainty who—according to the Bill—was the "manager." It must, he thought, be the chartermaster where the pit was worked by contract, and the doggy where the colliery carried on his pit. Mr. Checkley thought that one of the clauses pointed out the butty, but the Institute would see that the Act said owner, agent, or manager, and they might depend upon it an explanation would be given before the Bill passed.

After some further discussion the general rules were read, and clause 5, which referred to the imprisonment of persons having control of mines for wilfully endangering life and limb was discussed. It was agreed to oppose the clause.—The President suggested that the secretary should write to the Mining Association of Great Britain, which was watching the Bill very closely. In all probability they were objecting to the same clauses as the Dudley Institute.—Mr. Peacock moved that the whole matter be left in the hands of the President and Vice-President (Mr. Blakemore), who should have power to take whatever steps they thought necessary. This was seconded by Mr. North, and carried unanimously.—In reply to Mr. Checkley, it was stated that eight gentlemen represented South Staffordshire and East Worcestershire on the Mining Association of Great Britain. Among them were Mr. E. F. Smith, Mr. John Hartley, Mr. J. P. Hunt, and Mr. W. Williams.—Upon the motion of Mr. Spruce, it was formally agreed that there were many clauses and sections in the Bill that the Institute disapproved of.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

March 7.—There has been no alteration whatever in the state of the Iron Trade in either Derbyshire or Yorkshire. The Coal returns, however, for both counties are in the highest degree satisfactory. We find the quantity of coal conveyed by railway to the metropolis during the past two months has been greatly in excess of that carried during the corresponding period of any year since it was sent by rail. That the railway-borne coal is fast driving that carried by sea out of the London market is a great fact, and as the development of the minerals in Derbyshire and Yorkshire proceed this will be carried out even to a greater extent than at present. The great advantage of being able to reach London in from five to six hours, uninfluenced by weather, cannot be counterbalanced by anything within the reach of the North of England shippers to offer. With regard to the past two months, however, the Midland maintains a strong lead, in a great measure due to its legitimate coal field being nearer to London by about 30 miles than any other. The Great Western shows to better advantage, as does the Great Eastern.

MESSES. H. BRIGGS AND SONS' COLLIERY COMPANY.—The present prosperous state of the coal trade has induced the company to take the necessary steps for considerably increasing their present large and profitable business. A few days since an extraordinary general meeting of the shareholders was held for the purpose of confirming, or otherwise, the following resolutions passed at a general meeting, held on Feb. 7:—1. That the capital be and is hereby increased by the creation of 5000 additional shares of 1s. each.—2. That the direc-

tors be and are hereby empowered to issue 1000 of such shares, to be first offered to present holders of shares in the company, at a premium of 3s. 10s. per share, and to call upon capital account 10s. 10s. per share on the same, when and as they may deem desirable.—3. That of such 1000 additional shares, now created a number not exceeding 500 will be reserved for issue to employees of the company, and will be so issued when and on such terms as the directors may determine.—4. That the remaining 500 of such additional shares shall be kept in reserve until the shareholders—by resolution passed at any general meeting duly called—shall determine the period and terms of their issue. Mr. Currie B. Briggs, who presided over the meeting, at which a considerable number of the workmen were present, in moving the confirmation of the above resolutions, said the object in asking for increased capital was to enable the company to get an increased quantity of coal, and to make hay whilst the sun shone. Mr. Falbain (Bradford) said he did not think more capital was required; and Mr. Wroe, another shareholder, said the new issue would have the effect of lowering the shares 2s. each. Mr. A. Briggs said the fact was quite the contrary, as the shares had sold for higher prices since the announcement of the proposed new issue. An amendment was proposed that, instead of issuing new shares, a call of 1s. per share be made upon the present shareholders. The resolution was carried—only two voting for the amendment. In answer to a remark made, the Chairman said that the men present and in receipt of weekly wages from the company were qualified to vote, as they were all shareholders. He also stated that, according to the Articles of Association, unless a poll was demanded by twelve persons, his declaration that the resolutions were carried was quite sufficient. The issue of the new shares was accordingly agreed to.

PRESENTATION TO THE UNDERGROUND VIEWER OF THE NUNNERY COLLIERIES.

A very pleasant gathering of the officials and workmen employed at the Nunnery Collieries, near Shiffield, the property of His Grace the Duke of Norfolk, took place at the Golden Fleece Hotel, New Haymarket, the occasion being to testify their appreciation of the uniform kindness displayed by Mr. George Barker, underground viewer at the Silestone Pit, in the discharge of his duties. Mr. Barker is about to leave the Nunnery Collieries to superintend the opening of an extensive coal field near Kirkby Lonsdale, in Westmorland, which will be known as the "Great Main Colliery." When it became known that it was his intention to sever his connection with the workmen at the Nunnery Collieries the workmen and others immediately commenced to subscribe privately for the purpose of presenting him with some tangible proof of the sincerity of their respect and esteem. So hearty was the response to the solicitations of the projectors that in a few days they were enabled to purchase a splendidly ornamented marble tumpiece for Mr. Barker, and a silver-plated tea and coffee service, chastely wrought, as a present to Mrs. Barker. More than one hundred guests were present, including Mr. E. Bainbridge, the general manager for the Duke of Norfolk; Mr. Minto, the manager of the Holmes Colliery, near Rotherham; and Mr. Ward, manager of the Oaks Colliery, near Barnsley.

REPORT FROM THE NORTH OF ENGLAND.

March 7.—The weekly meeting at Middlesborough, on Tuesday, was large in point of attendance, but the actual business transacted was of only a limited character. The demand for all kinds of iron continues very active, notwithstanding the high prices now quoted in every department. Pig-iron makers, who are almost universally behind in their deliveries, are being much pressed for iron under contract, and also to sell for immediate requirements. The demand on "Change," on Tuesday, was animated, and as high as 80s. per ton was paid in some cases for No. 3. The average quotation for this quality was 77s. 6d., the former figure being generally for pig-iron for pressing necessities. Plenty of buyers can be found at 75s. for forward delivery, but makers are not anxious to enter into contracts for any lengthy period. Complaints are still prevalent respecting the scarcity of fuel for blast-furnace purposes, and seemingly without any prospect of an early improvement. The Cleveland Ironmasters' Association return for February has just been issued. Last month being two days shorter than January, the make of pig-iron during February, which was 155,672 tons, shows a decrease upon January of 4895 tons. The increase upon February of last year is, however, 14,604 tons. Shipments of pig-iron foreign from the port of Middlesborough for the month ending Feb. 29 reached 21,299 tons, whilst those for coastwise delivery were 16,880 tons, being an increase, collectively, upon the corresponding month of 1871 of nearly 20,100 tons. Makers' stocks are extremely low—lower, indeed, than is thought by some members of the trade to be prudent. At the end of last month the quantity of pig iron held by makers was only 44,874 tons, being 9197 tons less than at the end of January. There is also 2000 tons in the North-Eastern Railway Company's warrant store at Middlesborough, which has remained unaltered since Feb. 1. The number of furnaces blowing is 126, and there are 11 new furnaces now in course of erection.

In the Finished Iron Trade there is not anything of importance to report. In the various branches business continues in a very brisk state. Orders are plentiful, and the advanced prices are easily maintained for new work. For rails enquiries are numerous; quotations are 9s. 10s. to 9s. 17s. 6d. per ton. For plates, angles, and bars there is active demand.

In the Coal Trade a good deal of uneasiness prevails in consequence of the large demands by the men in regard to advance in wages and prices. At a conference of colliery owners and men, on Saturday last, the men demanded 3s. per cent. increase upon the rates of April last, when the "bonds" were entered upon. This the masters refused to concede, but offered to give an advance of 2s. per cent., which was, however, refused by the men. It now remains to be seen what the result will be.

THE COAL AND IRON TRADES OF AUSTRALIA.

It will probably be interesting to members of the coal and iron trades to have a few facts grouped together bearing upon their interests at the antipodes. It cannot be said that the Australian colonies are at present very large consumers of British iron; still they do import it to some extent, as will be seen from the annexed statistics, showing the shipments of various descriptions of iron to the Australias during the last three years:—

EXPORTS OF BRITISH IRON TO AUSTRALIA.

Description	18 9.	1871.	1871.
Bar, angle, bolt, and rod	Tons 18,031	12,517	12,811
Railway	22,329	8,691	14,110
Hoops, sheets, and plates	22,773	13,615	13,899
Cat or wrought	29,97	19,388	18,703
Total	93,233	51,101	59,101

These figures do not exactly represent the entire exports of all kinds of iron to the Australias in 1869, 1870, and 1871; still they may be taken as presenting a close approximation to the actual facts, and they show that the demand for British iron is not extending in our antipodean group of colonies just at present. It is true that there was last year rally from the great falling-off observable in the shipments of 1870, but still the return of 1871 was a very long way behind that of 1869. Nevertheless, there are signs of a probable greater Australian demand for our iron in future, and especially for our railway iron. The Australian colonies are subject to vicissitudes and fluctuations; but still they make progress and accumulate population and wealth, upon the whole, year by year. The result is that, after some years of comparative repose, a large amount of railway work has now been projected in the settlements composing the Australian group. In New South Wales the colonial engineer-in-chief has been surveying the country between Yass and Wagga, in order to ascertain the best route for a line; and it has been officially estimated that the revenue of the existing Government lines in 1871 presented an increase of 35,202, upon the corresponding revenue for 1870. No further delay is expected to take place in the prosecution of the works of the third section of the North-Eastern Railway of Victoria, the contractors, Messrs. CAIN, DALYMPLE, and HOLTOM, having paid the amount of their deposit and signed the contract. The Victorian Government has been forwarding documents to Europe, India, and America in order to ascertain the opinions of the best authorities with reference to a proposed change of gauge in the colony. In South Australia the promoters of the Bury and Glenelg Railway have ordered a large quantity of plant, and have been making arrangements for commencing operations. In Tasmania it cannot be said that much is doing in regard to railways just at present, the Colonial Government—or rather the Colonial Parliament—being unable to come to terms with the promoters of the projected main line from Launceston to Hobart. In Western Australia some gentlemen appointed to examine the country between Guildford and the eastern districts of the colony, in order to ascertain the best route for a railway, are stated to have been successful. The route selected by the committee along the valley of the Swan to Newcastle is very level, and presents no engineering difficulties whatever. The General Assembly of New Zealand has authorised the Colonial Government to engage the services of Messrs. BROGDEN and SONS to construct railways to the extent of 1,000,000 ft. It is also understood to be the intention of the Government of the province of Otago, New Zealand, to proceed with the construction of the Southern Trunk Railway of the province as far as Balclutha, and to let contracts for the execution of the works in sections of eight or ten miles each, so that the various divisions of the line may advance simultaneously.

Upon the subject of the Brunner Coal Mine, a committee of the New Zealand Assembly has reported its satisfaction that the Colonial Government regards the development of the mine as a subject of general

colonial interest. The Committee further recommend that suggestions embodied in a report by Messrs. BLACKETT and HARVEY, with reference to the construction of railways in the south island of New Zealand, should be carried out with the least possible delay. With regard to the Mount Rochfort Coal Mine, the same Committee observes that it has not at hand sufficiently reliable data to make a decided recommendation upon the subject. At the same time, the Committee calls attention to some interesting information given by Mr. O'CONOR upon the question, and it points out the desirability of instituting a thorough examination of the coal field in question, and of obtaining a proper survey of a line from thence to the mouth of the Buller river. The Committee makes the excellent observation that the speedy development of the coal fields of New Zealand is so closely connected with the welfare and success of almost every branch of local industry as to deserve at the hands of the Colonial Government the most earnest and careful attention. The question of the concession of New Zealand iron-sand into steel was brought under the notice of the Committee by Mr. E. SMITH, and the Committee recommends that Mr. SMITH should be reimbursed the expenses which he has incurred in experimenting upon the subject.

SOUTH AFRICAN GOLD FIELDS COMPANY (LIMITED).

Capital £30,000, in 30,000 Shares of £1 each, with power to increase.

Issue of 20,000 Preference Shares of £1 each, 10s. per share to be paid on application, and 10s. per share on allotment, making the shares fully paid.

£10,000 fully-paid shares will be paid to the South African Gold Fields Exploration Company (Limited) for their concessions, privileges, and mining rights in South Africa. These shares will be deferred, and will not be entitled to dividend until after the preference shares now offered to the public shall have received dividend of 20 per cent.

DIRECTORS.

Sir GEORGE BOWER, Bart., D.C.L., Radley Park, Berks. The Right Hon. Lord ROBERT MONTAGU, M.P., Carlton Club, Commander A. T. WINDUS, H.M.L.N., F.R.G.S., F.S.A., 14, St. James's-square, S.W. W. P. W. NORTWORTHY, Esq., Littleton, Chertsey, and Tongass, Natal. (With power to add to their number.)

BANKERS.

Messrs. SMITH, PAYNE, and SMITHS, 1, Lombard-street, London. BANKERS IN NATAL.—THE NATAL BANK, Maritzburg and Durban. LONDON AGENTS.—THE LONDON AND WESTMINSTER BANK.

AUDITORS.

Messrs. TURQUAND, YOUNGS, and CO., 16, Tokenhouse-yard, SUPERINTENDENT AT THE MINES—THOMAS DAINES, Esq., F.R.G.S.

SECRETARY—E. OLIVER, Esq.

OFFICES—41, THREADNEEDLE STREET, LONDON.

This company is formed for the purpose of acquiring and working the gold fields at Hartley-hill, South Africa.

The rents, two in number, are situated in an angle formed by the junction of the Simo and Umvoti rivers.

There is, consequently, water-power (the first requisite) available at a short distance from and on two sides of the workings.

Wood (the second requisite) is found in almost unlimited quantity in the vicinity of the mines.

Labour will be supplied by the natives when required; and a neighbouring people, called the Mashonas, are skilful in the extraction of gold in their primitive way from quartz.

No difficulty is experienced in the matter of transport. Goods can pass with comparative ease, in wagons carrying 3 and even 4 tons each, from the Port of D'U-ban, Natal, to the mines on the Simo; and contractions ready to convey machinery and stores at a fixed rate per ton.

The natives have been found most friendly, and anxious to promote the business and diplomatic relations with the British people; and Mr. Thomas Balme, F.R.G.S., who has now been nearly three years engaged in settling boundaries and commencing the work, had the honour to be the bearer of the Governor of the colony of Natal.

The concession of mineral rights over the whole district lying between Rivers Gwallyo and Ganyana is included in the sale to this company. The country is described as abounding in auriferous

WELAN LEAD MINING COMPANY
(LIMITED).

MANAGER AT THE MINES.

JOHN PAULL, Esq., Llanidloes, Montgomeryshire.

W. H. CULL, 42, CORNILL, LONDON, IS AUTHORISED TO RECEIVE APPLICATIONS for a FEW UNALLOTTED SHARES at 25s. per share.

JOHN PAULL, Esq., Llanidloes, Montgomeryshire.

W. H. CULL, 42, CORNILL, LONDON, IS AUTHORISED TO RECEIVE APPLICATIONS for a FEW UNALLOTTED SHARES at 25s. per share.

This mine, with its exceptional advantages, will prove the most highly remunerative of any that have been brought before the public for some time past. It is in close proximity to the celebrated Van Mine, which has already secured enormous profits to the shareholders—proven, as it has been, by one of the most remarkable rich in many lodes which have been already worked out with all the machinery that modern science can suggest, nothing being wanting to insure ample and rapid success, but careful and skilful management. This is fully guaranteed by the names of those in whose hands the matter has been left.

The estate is remarkably large, and, as far as past experience has proved, seems very likely to be equally productive of mineral, with the additional advantages of its situation, of being of such a nature that it can be worked both rapidly and inexpensively. These advantages, coupled with the fact that the land is at the exceptionally low figure of 1-15th, combine in rendering the Cwm Elan Mine one of the most permanently secure investments ever offered to the public, the shares of which are certain to go to a high price.

The Cwm Elan is situated on that range of lead-bearing hills in Radnorshire which includes the famous Van and the steady-going Llinsure and Cwmwithy Mines, profit-bearing for nearly half a century, to the extent of 50 per cent. The property itself, as it stands, may be called a mountain of lead, rising to the very top surface. The report places the merits of the Cwm Elan Lead Mining Company in an unquestionable position as an investment.

South Darren Mine, near Aberystwith, Sept. 12, 1871.—I visited and thoroughly examined the Cwm Elan Mine, near Rhayader, yesterday, and beg to submit to the following remarks on the concern.—The property is very advantageously situated for economical development, and is only six miles from the railway station, so that the conveyance of materials to the mine and the ores to market will be cheap.

Within the seat, which is about one mile long, on the course of the east and west main lode, and about the same width from north to south, there is a stream of water at all seasons of the year, which can easily be made available for working water-wheels, for pumping from the mine, hauling, crushing, washing the ores, and I need hardly point out to you that having such a supply of water for those purposes is very important, and will be most valuable.

The working of the mine consists of an adit level, driven a considerable distance by the side of the lode, which at a depth of 16 fathoms from surface was cut into and productive for lead and blende ores, from there on to the present end for 50 fathoms long, the lode now in the end being full 6 feet wide, and turning westward, the hill rises rapidly, so that by driving on the level it would give backs of 80 or 90 fms. and I believe large deposits of lead lode have been sunk from surface 2-1/2 fathoms to the adit level, and driving in a concomitant position for the proper and further development of the mine. I would recommend it to be continued down as fast as possible for a 14 or 15 fm. level now the adit, and then drive out east and west. In the ore ground, which is stated, is already 2 fathoms long, and the adit end still adding to this, opening out good paying ground. I should here remark that the formation through which this large lode traverses is a compact slate rock, and identical with that of the richest lead mines in this part of Wales.

In conclusion, I beg to say that I was much pleased with the appearance and character of the lode. Seeing that it is at the present depth so highly mineralised, I can but form one opinion respecting it, which is that when fairly developed a rich mine will be the result. JOHN BOUNDY, Mining Engineer.

Three Volumes, medium 8vo, with above 2000 wood-cuts, price £1 14s. 6d. cloth, or £5 12s. half-bound in Russia.

THE DICTIONARY OF ARTS, MANUFACTURES, AND MINES, containing a CLEAR EXPOSITION of their PRINCIPLES and PRACTICE. Sixth edition, rewritten and enlarged.

Edited by ROBERT HUNT, F.R.S., Keeper of Mining Records; assisted by numerous Contributors eminent in Science and familiar with Manufactures.

We shall with peculiar satisfaction now number over two thousand. No fifth edition. Mr. Hunt knows the labour appears to have been spared to the improvements of those who consult a rendered every article reliable and useful. Impressed with its value, we again commend the work to all persons engaged in scientific or manufacturing pursuits.

—Mining Journal.

London : LONGMANS, GREEN, and Co., Paternoster-row.

Just published, in 8vo., with 188 wood-cuts, price 2s.

MANUAL OF PRACTICAL ASSAYING. By JOHN MITCHELL, F.C.S.

In which are incorporated all the late important discoveries in Assaying made in this country and abroad; including Volumetric and Colorimetric Assays, and the Blowpipe Assays.

Edited and for the most part rewritten by WILLIAM CROOKES, F.R.S., &c.

A very valuable practical work, which we can cordially recommend.

—*Bulletin*.

The work, as it now stands, may safely be taken as a guide by buyers of ores, and by all persons engaged in the industry of chemical manufacture.

—*Mining Journal*.

London : LONGMANS, GREEN, and Co., Paternoster-row.

MR. JOHN BOURNE'S WORKS ON THE STEAM-ENGINE.

Latest Edition, in 4to., with portrait, 27 plates, and 516 woodcuts, price 42s. cloth.

TREATISE ON THE STEAM-ENGINE, in its various applications to Mines, Mills, Steam Navigation, Railways, Agriculture, with Theoretical Investigations, Tables, and Practical Instructions. By JOHN BOURNE, C.E.

By the same Author, Improved editions:—

CATECHISM OF THE STEAM-ENGINE, Practical Instructions for the Manufacture and Management of Engines of every class. With 89 woodcuts. Fcp. 8vo, price 6s.

RECENT IMPROVEMENTS IN THE STEAM-ENGINE. Eighth edition, including many new examples, with 124 woodcuts. Fcp. 8vo, price 8s.

HANDBOOK OF THE STEAM-ENGINE; for the Catechism of the Steam-Engine. With 67 woodcuts. Fcp. 8vo, price 6s.

TREATISE ON THE SCREW-PROPELLER, 8vo. London : LONGMANS, GREEN, and Co., Paternoster-row.

Now ready, crown 8vo., cloth, price 16s.

THE EIGHTH EDITION.

MANUAL OF CIVIL ENGINEERING, By PROF. W. J. MACQUORN RANKINE, LL.D., F.R.S.S., &c.

As a manual for the professional civil engineer it is unrivalled.—*Engineer*.

Might be termed an encyclopaedia of the science, for it touches with a master-hand, every branch of it.—*Mechanics' Magazine*.

CHARLES GRIFFIN and Co., 16, Stationers' Hall-court, London.

Sixth edition, revised, with 40 illustrations, price 3s. 6d.

MOY CHIMINEYS: Their Cure and Prevention. By FREDERICK EDWARDS, Jun.

UR DOMESTIC FIRE-PLACES: new edition, with 149 Illustrations, price 12s.

THE EXTRAVAGANT USE OF FUEL IN COOKING OPERATIONS, with 47 illustrations, price 5s.

London : LONGMANS, GREEN, and Co., Paternoster-row.

O P H A Z H U M P H R E Y , MINING ENGINEER, ABERYSTWITH.

IMPORTANT NOTICE.

Gentlemen desirous of securing BONA FIDE MINERAL PROPERTIES IN WELSHSHIRE and MONTGOMERYSHIRE may do well by communicating with the above.

R. CAVENDISH TAHOURDIN, SHREWSBURY, STOCK AND SHAREDEALER, on his long experience with and residence in the district, is always in a position to give reliable information upon the Shropshire Mines, and will sell purchase every description of shares for net cash or account at the best market prices. Special business in—

Perkins Beach. Tankerville. Roman Gravels. West Tankerville. South Roman Gravels.

Parties wishing to sell or purchase in the foregoing are requested to make application.

FOR SALE—50 Perkins Beach, at 9s. 6d.

The purchase of shares in the CARDIGANSHIRE OLD BOG MINE (Limited) is strongly recommended. Immediate application should be made.

WANTED TO PURCHASE, the following (or any less number), for cash:—

20 Tankerville. 100 West Tankerville.

50 Roman Gravels.

Bankers: National Provincial Bank of England.

CAPTAIN ABSALOM FRANCIS, GOGINAN, ABERYSTWITH.

Mining Agent, Engineer, and Surveyor.

The great success which is attending the opening and working of the Mines in the counties of Cardigan and Montgomery, and the many properties placed in the disposal of Capt. ABSALOM FRANCIS, induces him to offer his services to ADVISE, INSPECT, REPORT, or SURVEY, for Mining Companies private shareholders.

For terms, apply to Capt. ABSALOM FRANCIS, as above.

DESIRABLE INVESTMENT.

MESSRS. WARD AND CHOWEN WILL SELL, AT AUCTION, at the Bedford Hotel, Tavistock, on Thursday, the 14th day of March next, at half-past Three o'clock in the afternoon, the undermentioned highly desirable FREEHOLD ESTATES, known as

EAST WONWOOD AND FOGHANGER,

Situated respectively in the parishes of SYDENHAM DAMARELL and MILLTON ARBOT, in the county of DEVON, subject to such conditions as will be then and there produced, in One or more Lots, as may be agreed on at the time of sale—viz., EAST WONWOOD, situate in the parish of Sydenham Damarell, and containing 90 acres, more or less, of rich meadow, pasture, productive orchard, and arable land, together with a comfortable and commodious residence, comprising dining, drawing, breakfast, kitchens, and other rooms on the ground floor, and several bedrooms; also suitable and convenient yards and out-houses, and two cottages, with gardens, on the borders of the estate.

The estate is exceedingly compact, lying within a ring fence, and has a fine southern aspect, the house commanding beautiful and extensive views of the surrounding country; it is accessible by good roads (the Launceston and Tavistock highway bounding the estate on one side), and about four miles from the railway station at Tavistock.

Several rich mineral lodes are known to intersect the estate, some of them have been partially operated upon with success, several hundreds of tons of lead ore having been marketed therefrom when the mine was worked under the name of Wheal Concord, a name very familiar to the mining world.

It is believed by competent Judges that vast sources of wealth remain still undeveloped, and that it requires only the spirited enterprise of a company to render the mine handsomely remunerative. Strong inducements for working the mine are held out by so much costly work having already been done, and the buildings erected being in good condition.

FOGHANGER ESTATE, situate in the parish of Milton Abbott, containing about 38 acres, more or less, of very productive watered meadow, rich grazing, pasture, and arable land, together with house and suitable outbuildings and cottage garden, pigsty, &c., on another part of the estate. This comprises land of very rich quality, has a southern aspect, is well watered, and intersected by good roads. On this estate also rich mineral lodes are known to exist, and the valuable indications already discovered are sufficient to justify the belief that valuable deposits of ore lie underneath.

The above property is within half a mile of a pack of foxhounds, and also within an easy distance of some of the best fishing in the country, rendering it admirably adapted to a gentleman who is desirous of combining the pleasures of a country life with the pursuit of agriculture. The parish church is situated about one mile from Wonwood House.

Plans and particulars of the property may be seen at each of the respective estates; and any further information may be obtained on application either to Mr. C. V. BRIDGEMAN, Solicitor, or to the Auctioneers, both residing at Tavistock.

BED HEMATITE IRON ORE MINES, SOUTH DEVON.

MESSRS. HARDIS, VAUGHAN, AND LEIFCHILD are INSTRUCTED TO SELL, BY AUCTION, at the Mart, on Tuesday, March 19, 1872, at One for Two o'clock precisely, a very valuable HEMATITE IRON ORE PROPERTY, known as

TOBAY IRON MINES.

Situate within three miles of BRIKHAM, DEVON, together with the USE OF the very complete and valuable MACHINERY, PLANT, and UTENSILS.

The mines are at present in operation, and it is estimated that with a further small outlay large quantities of ore can be produced annually. The royalties are extremely moderate, amounting to only about 1s. 6d. per ton.

Full particulars and conditions of sale may be had of Messrs. BARNARD and HARRIS, Solicitors, 1, Gresham-buildings, Basinghall-street, E.C.; or of the Auctioneers, 62, Moorgate-street, London, and Greenwich.

STAFFORDSHIRE, NEAR WOLVERHAMPTON.

Freehold Landed Estate; let on lease at net rents of £320 per annum, and forming a sound investment for trustees.

MESSRS. HARDIS, VAUGHAN, AND LEIFCHILD are INSTRUCTED TO SELL, BY AUCTION, at the Mart, London, on Tuesday, March 19, at Two o'clock, in Three Lots, the VALUABLE FREEHOLD LANDS, distinguished as the

MOSELEY HOLE ESTATE.

With FARM-HOUSE and BUILDINGS, situate in the liberties of BILSTON, WILLENHAL, and WEDNESFIELD, within about two miles of the town of WOLVERHAMPTON, and comprising (with about 10 acres copyhold of the Manor of Sowlehead) 98A. 2R. 16P., occupied by the Chilington Iron Company for mining purposes, and let on lease for 63 years from 6th February, 1829, at £227 per annum; also about 11 acres of land adjoining, let on lease for a like term, at a net surface rent of £14 per annum; and a copyhold cottage, in the town of Bilston, let at £9 per annum.

Plans, particulars, and conditions of sale may be had of Messrs. HOLMER, ROBINSON, and STONEHAM, solicitors, 5, Philpot-lane, London, E.C.; or of Messrs. TIMMINS and WOODCOCK, land surveyors and mining agents, Wolverhampton; or of the Auctioneer.

SWADLINCOTE, DERBYSHIRE.

MESSRS. POTT AND NEALE WILL SELL, BY AUCTION, at the Queen's Hotel, Burton-upon-Trent, on Tuesday, the 19th day of March, 1872, at Two for Three o'clock in the afternoon precisely, either in One Lot, or in the following or such other lots as may be agreed upon, and subject to such conditions as may be produced at the time of sale, the very eligible and highly valuable

FREEHOLD AND LEASEHOLD ESTATES.

Belonging to the surviving trustee of the will of the late COURT GRANVILLE, Esq., situate at SWADLINCOTE and CHURCH GRESLEY, in the county of DERBY, and on ASHBY WOLDS, in the county of LEICESTER, comprising

378 ACRES 2 RODES 51 PERCHES,

or thereabouts, of valuable FREEHOLD ARABLE, MEADOW, PASTURE, and WOODLANDS, with the dwelling-house, steam corn mill, cottages, pot works, water works, and erections thereon. Also the Coal, Brick, and Pot Clay, and all Minerals thereunder. Together with the

GRANVILLE COLLIERY,

Engines, shafts, railways, machinery, and plant of every description (both surface and underground), and the various beds of coal in course of being worked, partly belonging to and partly on lease to the said trustee, and comprising an area of about 280 acres 0 rods 10 perches, situate in the parishes of Church Gresley and Ashby-de-la-Zouch, and immediately adjacent to or surrounding the said colliery.

LOT 1.—TWO FREEHOLD COTTAGES, BUILDINGS, and GARDEN GROUND, in the occupation of John Bates, John Hudson, Thomas Sabine, and others, containing in the whole 3 acres 0 rods 10 perches, or thereabouts, and situated near to the town or village of Swadlincote, together with the minerals, as more fully described in the particulars of sale.

LOT 2.—SIX FREEHOLD COTTAGES, BUILDINGS, GARDENS, and CLOSES of PASTURE LAND, in the occupation of William Carrick Crofts, and others, containing in the whole 3 acres 2 rods 3 perches, or thereabouts, and situated at Church Gresley, together with the Minerals to the depth of 100 yards from the surface.

LOT 3.—SEVEN CLOSES of FREEHOLD LAND, called the Pool Land, Church Gresley, in the occupation of James Beard, and containing 13 acres 2 rods 40 perches, or thereabouts (exclusive of minerals).

LOT 4.—FIVE CLOSES of FREEHOLD LAND, with a PLANTATION, situate on Ashby Wolds, and near to Woodville, in the occupation of T. Knowles' executors, and containing 20 acres 1 rod 22 perches, or thereabouts (exclusive of minerals).

LOT 5.—FREEHOLD DWELLING HOUSES, STRAM CORN MILL, BUILDINGS, GARDENS, and valuable PASTURE and ARABLE LAND, in the occupation of Benjamin Bridge, W. Cotterill, B. M. Dunn, Isaac Dawes, and others, containing in the whole 51 acres 0 rods 32 perches, or thereabouts, and situated on Swadlincote and Gresley Commons, containing in the whole 286 acres 3 rods 20 perches, or thereabouts, with the mines or minerals lying thereunder, as more fully described in the particulars of sale.

LOT 6.—FREEHOLD DWELLING HOUSES, COTTAGES, BUILDINGS, COLLIERY PLANT, WATER WORKS, POT WORKS, RAILWAYS, BRICK YARDS, and valuable arable, pasture, garden, and wood LANDS, known as the Granville Estate, at Swadlincote, with the GRANVILLE COLLIERY, situated on Swadlincote and Gresley Commons, containing in the whole 286 acres 3 rods 20 perches, or thereabouts, with the mines or minerals lying thereunder, as more fully described in the particulars of sale.

LOT 7.—THE BENEFICIAL REVERSION in the unworked COAL and other MINERALS leased to Messrs. Church and Maples underneath lands at Swadlincote, and containing 81 acres 2 rods 30 perches, or thereabouts, all which coals and minerals are fully described in the particulars of sale.

There is a railway station at Swadlincote, on the borders of the estate, and the Wooden Box or Woodville Branch of the Midland Railway is connected with the colliery, and bounds the property for a considerable distance.

The estate, which is situated about four miles from Burton-on-Trent, and about three miles from Ashby-de-la-Zouch, is in the centre of a fine agricultural and mining district, and possesses advantages for enjoyment and profitable occupation and commercial enterprise very rarely to be met with.

Plans and particulars are now ready, and may be obtained on application to the Auctioneers, Notttingham; and 23, Cockspur-street, London; Mr. J. T. WOODHOUSE, Civil and Mining Engineer, 11, Great George-street, Westminster, and Midland-road, Derby; Mr. JOHN SHAW, Land Agent and Surveyor, Derby; Messrs. E. and T. FISHER, Solicitors, Ashby-de-la

ALEXANDER SMITH,
CONSULTING ENGINEER, AGENT, AND VALUER
OF PLANT AND MACHINERY.
28, EXCHANGE, BIRMINGHAM,
AND
BOURNE STREET AND CASTLE STREET, DUDLEY.
ESTABLISHED 1818.

TANK LOCOMOTIVES FOR SALE, CHEAP.

From 12 in. to 18 in. cylinder. Four wheels coupled. In first-class order, and can be delivered immediately.

Also, a splendid 21-in. PLATE MILL; three sets of housings, with spare rolls, complete.

ALEXANDER SMITH,
CONSULTING ENGINEER, AGENT, AND VALUER OF PLANT
AND MACHINERY, DUDLEY.

FREDERICK MIRLS,
ENGINEERING AUCTIONEER,
VALUER AND SURVEYOR,
17, ST. ANN'S SQUARE, MANCHESTER.

MCNIEL, MULLER, AND CO.,
MANCHESTER,

SOLE AGENTS FOR { "S. B. HÆMATITE," } PIG IRON;
'CLAY LANE,'

AGENTS FOR JACKSON, GILL, AND CO., IMPERIAL
IRONWORKS, NEAR MIDDLESBOROUGH;
DARLINGTON WAGON COMPANY, DARLINGTON.

SCOTCH, HÆMATITE, STAFFORDSHIRE, DERBYSHIRE, FOREST OF
DEAN, COLD BLAST AND REFINED PIG IRON, PUDDLED BARS AND
BAR IRON, STEEL, SPelter, TIN, COPPER, LEAD, SHEETS, ORES, &c.

JOHN BOURNE AND CO.,
ENGINEERS, SHIPBUILDERS, AND CONTRACTORS,
BLOWING ENGINES, WINDING ENGINES,
Bourne's Patent Spherical Governors, Bourne's Patent Feedwater Heaters,
Bourne's Patent Gas Furnaces, Bourne's Patent Coal-dust Furnaces,
PUMPING ENGINES, STEAM BOILERS,
66, MARK LANE, LONDON.

ESTABLISHED 1860.

FIRST BRATTICE CLOTH AND GREASE WORKS ESTABLISHED IN
WALES AND SOUTH OF ENGLAND.

BRATTICE CLOTH!
PATENT (PERFECTLY AIR-TIGHT).

DOOR CLOTH.
DOORS MADE READY ANY SIZE, WITH BRASS
EYELETS.

Telescopic Sheet Iron Air Tubing.

Will last for years, and can be fitted in any lengths, and easily taken
down the pit.

**Also, Galvanised TUBING;
Canvas Flexible TUBING.**

With iron hoops and hooks fitted complete.

Ten yards can be packed in small space, and a man may carry 20 yards easily.

TRAM GREASE and OIL, 5s., 6s., 7s., and 8s. 6d. per cwt.

GEO. J. MAY,
THE GREEN, NEATH,
SOUTH WALES.

HANDASYDE'S BOILER COMPOSITION

(C. H. HANDASYDE AND CO., DALKEITH, N.B.)

For the REMOVAL and PREVENTION of INCRUSTATIONS in STEAM
BOILERS, &c., in extensive use among Collieries, Ironworks, and Mills in
Scotland; also, with great success, on the North British
Railway Company's Locomotives.

Net price, 12s. 6d. per cwt.; 10 cwt. orders carriage paid; free from acids.

A TRIAL SOLICITED.

SPECIALTY RECOMMENDED for LOCOMOTIVES, being completely soluble
in water, and only requires to be put into the tender.

THE
DARLINGTON WAGON COMPANY,
MANUFACTURERS OF
RAILWAY WAGONS
OF EVERY DESCRIPTION.

For Cash, or on Deferred Payments, or Hire.

Repairs executed with Dispatch, on Reasonable Terms.

Offices and Works,

ALBERT HILL, DARLINGTON.

Every Saturday, in time for early morning mails (10 pages),

**THE MINING WORLD, AND ENGINEERING AND
COMMERCIAL RECORD.**

A Weekly Journal of Mining, Railway, Banking, Assurance, and Joint-
Stock Enterprise.

A single copy (post free), 6d.; annual subscription (in advance), £1 1s.
The "Mining World" is an independent and thoroughly impartial organ of
the various interests—Mining, Engineering, Trading, and Commercial—form-
ing the mercantile community. It contains thoughtful and well-digested ar-
ticles by competent writers on all important questions affecting these interests.

Public meetings are so fully and impartially reported as to render the "Mining
World" peculiarly a shareholders' representative. In order to still further in-
crease its value to bona fide investors, a special article appears on the new com-
panies registered from time to time. The Articles of Association are carefully
analysed, and all objectionable features fearlessly exposed, and no pains spared
on the part of the conductors to warn the unwary from embarking in disrup-
tive schemes, similar to those which in times past have brought so much dis-
credit on joint-stock enterprise.

Correspondents ever find the pages of the "Mining World" open to receive
their contributions when written in a fair and manly spirit, and containing leg-
itimate criticism—indeed, the conductors, wishing to make their journal a medium of inter-communication for the information of investors, cordially invite
such contributions.

American and Australian mining enterprise having of late years attained an
unprecedented importance, arrangements have been made for obtaining exclu-
sive and reliable information respecting the position and prospects of existing
and projected mines in these countries from practical men resident on the spot.

Special attention is given to render the articles on the mining and metal mar-
kets interesting and easily comprehensible to the uninitiated. The Share Lists
are found extremely valuable, being compiled in a concise yet intelligible
manner.

A Supplement of eight pages, entitled the MONETARY WORLD, containing the
Official Stock and Share Lists, an original article on a commercial topic, and an
exhaustive Money Article by a thoroughly practical writer, is issued weekly.

Under the head of "To Readers," the editor is prepared to give subscribers the
benefit of his experience in mining and commercial matters, although such ad-
vice must, of course, be taken as merely a personal expression of opinion.

Sold at all railway bookstalls, and by every news-vendor.

Offices, 241 and 242, Gresham House, London.

N.B.—The "Mining World" is not the property of a mining speculator, or
under the control of any clique.

**THE NEWCASTLE CHRONICLE AND NORTHERN
COUNTIES ADVERTISER. (ESTABLISHED 1764.)**
THE DAILY CHRONICLE AND NORTHERN COUNTIES ADVERTISER.
Offices, 42, Grey-street, Newcastle-upon-Tyne; 50, Howard-street, North
Shi lds.; 198, High-street, Sunderland.

BLAST-FURNACE & SUPERIOR PUDDLING ORE.
THE DALTON HÆMATITE MINING COMPANY,
ULVERSTON,
Are in a position to SUPPLY BLAST-FURNACE and very SUPERIOR PU-
DDLING ORE to consumers only.

LOCOMOTIVE TANK ENGINES
FOR MAIN LINE TRAFFIC, SHORT LINES, COLLIERIES,
CONTRACTORS, IRONWORKS, MANUFACTORIES, &c., from a
superior specification, equal to their first-class Railway Engines, and specially
adapted to sharp curves and heavy gradients, may always be had at a short
notice from—

MESSRS. BLACK, HAWTHORN, AND CO.,
LOCOMOTIVE, MARINE, AND STATIONARY ENGINE WORKS,
GATESHEAD-ON-TYNE.

ORE-DRESSING MACHINERY.

SEPARATION TROMMELS.
JIGGING MACHINES,—Continuous and automatic.

CLASSIFIERS.
SHAKING TABLES.

PERFORATED PLATES,—For Trommels, Jigging Sieves, and
Stamps' Grates.

SACH'S ROCK-DRILL,—As used at Altenberg, Commern, Saar-
bruck, and Musen.

For particulars, apply to—
MESSRS. KEMBER AND CO.,
CLARENDON GROVE, DRUMMOND STREET, N.W., LONDON

CRUSHER ROLLS.

THE SANDYCROFT FOUNDRY AND ENGINE WORKS
COMPANY (LIMITED).

Are now MANUFACTURING CRUSHER ROLLS of PEGLARLY HARD
and TOUGH METAL, and are OPEN to UNDERTAKE the SUPPLY of ANY
QUANTITY, and to any PATTERN REQUIRED.

Prices and particulars of the above, and of every description of Mining En-
gines, Boilers, Forgings, Pitwork, Water Wheels, Crushing, Dressing, and Amal-
gamating Machinery, and Miling Tools of all kinds, &c., &c., may be obtained
on application at the works of the company,

SANDYCROFT, near CHESTER; or at their London Office,

MESSRS. JOHN TAYLOR AND SONS, 6, QUEEN STREET PLACE, E.C.

PATENT GAS EXHAUST AND PROPELLER.

FOR SUPPLYING MINES AND OTHER WORKS
at considerable depths underground with LIGHTING GAS, without re-
quiring weighted gas-holder. Now in use at several of the largest and deepest
collieries in Yorkshire.

For terms and particulars, apply to Mr. G. HUNTRISS, Doncaster; or to
NEEDHAM, QUALTER, HALL, and CO., Railway Foundry, Barnsley.

NOTICE.—STEEL AND IRON RAILS.

THE CONTRACTORS AND ENGINEERING AGENCY are
now prepared to MAKE CONTRACTS for the EARLY DELIVERY of
STEEL and IRON RAILS, SWITCHES, and CROSSINGS to specification,
FOR FAIR, several lots of slightly defective RAIL. Also, several new and
second-hand LOCOMOTIVES, from 8' in. to 24 in. cylinders, COAL, BAL-
LAST, TIP WAGONS, and COLLIERY COAL TRAMS, HORIZONTAL, VERTI-
CAL, and PORTABLE ENGINES; PUNCHING, SHEARING, DRILLING,
SCREWING, SLOTTING, SHAPING, PLANING, and SAWING MACHINES;
LATHE, CRANES, LIFTING JACKS, MORTAR MILLS, BOILERS, WEIGH-
ING MACHINES, CAST and WROUGHT-IRON TANKS, PUMPS (especially
adapted for Mines), VICES, BRIGHT, SHIFTING and MINERS' TOOLS of
the newest patterns and best make; CRUCIBLE CAST-STEEL, and MAL-
EABLE IRON CASTINGS; STEEL, IRON, and GALVANISED WIRE, for
cables, rope, telegraphs, &c.; GALVANISED and CORRUGATED IRON, for
houses, roofing, fencing, &c.

4, WESTMINSTER CHAMBERS, VICTORIA STREET, S.W.
ROBERT WALKER, MANAGER.

BENNETT'S SAFETY FUSE WORKS,
ROSEKEAR, CAMBORNE, CORNWALL.

BLASTING FUSE FOR MINING AND ENGINEERING PURPOSES.

Suitable for wet or dry ground, and effective in Tropical or Polar Climates.

W. BENNETT, having had many years' experience as chief engineer with
Messrs. Bickford, Smith, and Co., is now enabled to offer Fuse of every variety
of his own manufacture of best quality, and at moderate prices.

Price Lists and Sample Cards may be had on application at the above address

F. G. MULHOLLAND'S
PATENT PHOSPHORISED PRESERVATIVE
AND
ELASTIC ENAMEL COMPOSITIONS

FOR PREVENTING FOULING ON SHIPS' BOTTOMS
and PRESERVATIVELY COATING EXTERNAL or INTERNAL TIM-
BER and METALLIC CONSTRUCTION or every kind.

These invaluable mediums are supplied in a liquid state, of any required tint,
ready for use in all climates. They set almost immediately without smell; cost
less than ordinary colour; their application does not require skilled labour;
two coats produce an effective stain and varnish; they afford absolute protec-
tion to timber from dry rot; and being proof against humidity are specially
adapted as glue for joiners' and cabinet-makers' work generally.

Particulars and prices of the proprietors—

21, GREAT ST. HELENS, BISHOPSGATE, E.C., LONDON.

THE HOWARD SAFETY BOILER,

For STATIONARY and MAHINE ENGINES, has the following advantages:—
SAFETY; NO RISK from DANGEROUS EXPLOSION; HIGH-PRESSURE STEAM, with ECONOMY OF FUEL; perfect
circulation, and ready means of removing sediment.

Saving of cost and time in repairs; portability, and, for export, great saving in freight.

Patentees and Manufacturers: J. and F. HOWARD, Britannia Iron Works, Bedford.

LONDON OFFICE: 4, CHEAPSIDE (three doors from St. Paul's).

JOSEPH ORD,
ENGINEER, MILLWRIGHT, SMITH, &c.,
101, RILEY STREET, BERMONDSEY, S.E.

MANUFACTURER of IMPROVED HORIZONTAL STEAM ENGINES; HYDRAULIC, WHARF, and WAREHOUSE CRANES
PUMPS of all kinds, made in Brass, Copper, or Iron; also HIDE and SKIN SPLITTING MACHINES, and TANNERS'

TOOLS of every description to order.

BREWERS and DISTILLERS' MACHINERY attended to with the strictest punctuality.

IMPROVED STEEL TOOTH BARK MILLS, of the most modern description, for Grinding Oak, Valonia, Mimosa, and other Barks.

CHAIN FOR ALL STOCKS.

BY APPOINTMENT TO HER MOST



GRACIOUS MAJESTY THE QUEEN.

FEARFUL

BOILER EXPLOSIONS AVOIDED BY USING PAYNE'S ANTI-CORROSION FLUID.

It is highly recommended by Engineers to Proprietors of Steam Boilers (Marine or Stationary) for PREVENTION and REMOVAL
of INCRUSTATION. The price is 6s. per gallon. One gill per horse power per week will remove any incrustation from old boilers
and keep new perfect.

[CERTIFICATE.]

"DEAR SIR,—I have minutely examined your Anti-Corrosive Preparation, and can state with confidence that in no way is it injurious
to iron or brass. It is inodorous and perfectly harmless, even when swallowed.

T. R. L. HOOPER, M.R.C.S.L.

"Mr. Payne."

ORDERS ADDRESSED TO

PAYNE AND CO.,
33, CHERRY GARDEN STREET, BERMONDSEY, LONDON, S.E.

SICKFORD'S PATENT
FOR CONVEYING
CHARGE IN



SAFETY FUSE,
FIRE TO THE
BLASTING ROCKS.

Obtained the PRIZE MEDALS at the "ROYAL EXHIBITION" of 1851; at the "INTER-
ATIONAL EXPOSITION" held in Paris, in 1855; at the "INTERNATIONAL
EXHIBITION," in Dublin, 1865; at the "UNIVERSAL EXHIBITION," at Alten-
berg, 1869.

BICKFORD, SMITH AND CO.,
TUCKINGMILL, CORNWALL, MANU-
FACTURERS OF PATENT SAFETY-FUSE, having been in-
formed that the name of their firm has been attached to the
trade and public, beg to call the attention of
the trade and public to the following announcement:

EVERY COIL of FUSE MANUFACTURED by them
has TWO SEPARATE THREADS PASSING THROUGH THE COLUMN of
PUNPOWDER, and BICKFORD, SMITH AND CO. CLAIM SUCH TWO SE-
PARATE THREADS as THEIR TRADE MARK.

For Excellence
and Practical Success
of Engines



Represented by
Model exhibited by
this Firm.

HARVEY AND CO.,
ENGINEERS AND GENERAL MERCHANTS,
HAYLE, CORNWALL,
AND HAYLE FOUNDRY WHARF, NINE ELMS, LONDON,
CITY OFFICES (GRESHAM HOUSE), 23½, OLD BROAD STREET,
MANUFACTURERS OF
PUMPING and other LAND ENGINES and MARINE STEAM ENGINES
of the largest kind in use, SUGAR MACHINERY, MILLWORK, MINING
MACHINERY, and SHIPBUILDERS IN WOOD AND IRON.

SECONDHAND MINING MACHINERY FOR SALE,
IN FIRST-RATE CONDITION, AT MODERATE PRICES.

PUMPING ENGINES; WINDING ENGINES; STAMPING ENGINES,
STEAM CAIRNS; and CRUSHERS of various sizes. BOILERS,
STAMPWORK of all descriptions, and all kinds of MATERIALS required
for MINING PURPOSES.

THE PATENT PNEUMATIC STAMPS
May be SEEN AT WORK at HAYLE FOUNDRY WHARF, NINE ELMS,
by previous application at either of the above addresses.</

J. WOOD ASTON AND CO., STOURBRIDGE

(LATE WOOD BROTHERS),
(WORKS AND OFFICES ADJOINING CRADLEY STATION),
Manufacturers of

CRANE, INCLINE, AND PIT CHAINS,

Also CHAIN CABLES, ANCHORS, and RIGGING CHAINS, IRON and STEEL SHOVELS, SPADES and FORKS, ANVILS, VICES, SCYTHES, HAY and CHAFF KNIVES, PICKS, HAMMERS, NAILS, RAILWAY and MINING TOOLS, FRYING PANS, BOWLS, LADLES, &c., &c.

Crab Winches, Pulley and Snatch Blocks, Screw and Lifting Jacks, Ship Knees, Forgings, and Use Iron of all descriptions.

STOURBRIDGE FIRE BRICKS AND CLAY.

PRIZE MEDALS—PARIS, 1867; HAVRE, 1868; HIGHLAND SOCIETY, 1870.

B. & S. MASSEY, OPENSHAW CANAL IRONWORKS, MANCHESTER.



PATENTEES AND MAKERS OF DOUBLE AND SINGLE-ACTING STEAM HAMMERS of all sizes, from 17 lbs. to 20 tons, with Self-acting or Hand Motions, in either case giving a perfectly DEAD-BLOW, while the former may be worked by hand when desired. Large Hammers, with Improved Framing, in Cast or Wrought Iron. Small Hammers working up to 500 blows per minute, in some cases being worked by the foot of the smith, and not requiring any separate driver.

SPECIAL STEAM STAMPS, of great importance for Smith Work, Bolt-making, Punching, Bending, &c.

Hammers for Engineers, Machinists, Shipbuilders, Steel Tilters, Millwrights, Coppersmiths, Railway Carriage and Wagon Builders, Colliery Proprietors, Ship Smiths, Bolt Makers, Cutters, File Makers, Spade Makers, Locomotive and other Wheel Makers, &c.; also for use in Repairing Smithies of Mills and Works of all kinds, for Straightening Bars, Bending Cranks, Breaking Pig-iron, &c.

STEAM HAMMERS AND STEAM STAMPS MAY ALWAYS BE SEEN AT WORK.

AWARDED TWENTY GOLD AND SILVER FIRST-CLASS PRIZE MEDALS.

IMMENSE SAVING OF LABOUR

TO MINERS, IRONMASTERS, MANUFACTURING CHEMISTS, RAILWAY COMPANIES, EMERY AND FLINT GRINDERS, MCADAM ROAD MAKERS, &c., &c.

BLAKE'S PATENT STONE BREAKER,
OR ORE-CRUSHING
MACHINE,

FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF
EVERY KIND.

This is the only machine that has proved a success. This machine was shown in full operation at the Royal Agricultural Society's Show at Manchester, and at the Highland Agricultural Society's Show at Edinburgh, where it broke 1½ ton of the hardest trap or whinstone in eight minutes, and was AWARDED TWO FIRST-CLASS SILVER MEDALS. It has also just received a SPECIAL GOLD MEDAL at Santiago, Chili.

It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England.

Read extracts of testimonials:—



For illustrated catalogues, circulars, and testimonials, apply to—

H. R. MARSDEN, SOHO FOUNDRY,
MEADOW LANE, LEEDS,
ONLY MAKER IN THE UNITED KINGDOM.

The First Prizes of the Royal Agricultural Society of England.

PORTABLE STEAM ENGINES,

WITH ALL RECENT IMPROVEMENTS.

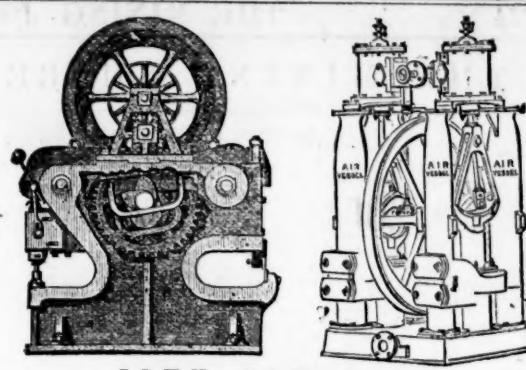
PORTABLE THRASHING MACHINERY, &c., &c.

CLAYTON AND SHUTTLEWORTH.

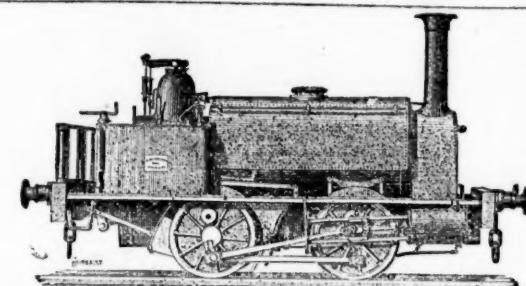
Revised Catalogues can now be obtained at

STAMP END WORKS, LINCOLN; 78, LOMBARD STREET, LONDON;
AND TARLETON STREET, LIVERPOOL.

CATALOGUES SENT FREE BY POST ON APPLICATION.

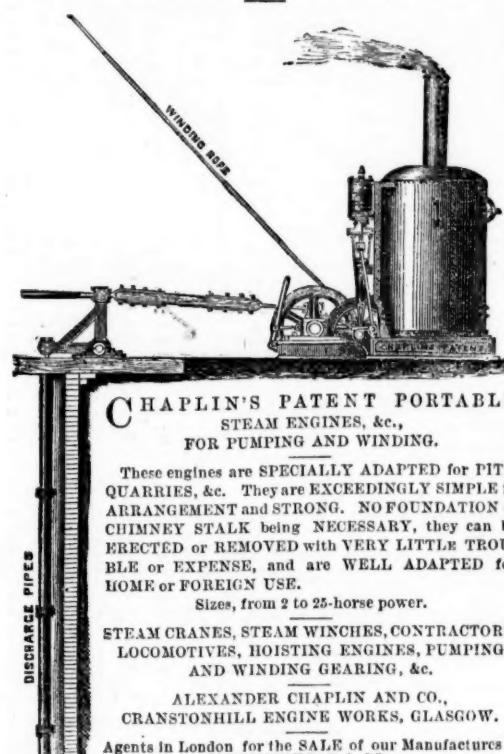


MAKER OF
STEAM PUMPS, PORTABLE ENGINES, PLATE BENDING ROLLERS
BAR AND ANGLE IRON SHEARS, PUNCHING AND SHEARING
MACHINES, PATENTEE OF THE DOUBLE CAM LEVER
PUNCHING MACHINE, BAR SHEARS, AND RAIL
PUNCHING MACHINES,
EGERTON STREET IRON WORKS,
HULME, MANCHESTER.



TANK LOCOMOTIVES,
FOR SALE OR HIRE.
HENRY HUGHES AND CO.,
LOUGHBOROUGH.

Prize Medal—International Exhibition, 1862.



Letters Patent for New Inventions.

—HASELTINE, LAKE, and CO., obtain Home, Foreign, and Colonial Patents on favourable terms. Instruction and charges on application.

No. 8, SOUTHAMPTON BUILDINGS, LONDON; 28, CHANGE ALLEY, SHEFFIELD; 79, GEORGE STREET, EDINBURGH; and 247, BROADWAY, NEW YORK.

THE TIN MINES OF CORNWALL AND DEVON—
THEIR PRESENT POSITION AND PROSPECTS.

By THOMAS SPARGO,
Mining Engineer and Stock and Shareholder, Gresham House, London, E.C.
Price 5s., post free.

THE IRON AND COAL TRADES' REVIEW:
ROYAL EXCHANGE, MIDDLESBROUGH.

The IRON AND COAL TRADES' REVIEW is extensively circulated amongst the Iron Producers, Manufacturers, and Consumers, Coalowners, &c., in all the iron and coal districts. It is, therefore, one of the leading organs for advertising every description of Iron Manufactures, Machinery, New Inventions, and all matters relating to the Iron, Coal, Hardware, Engineering, and Metal Trades in general.

Offices of the Review:—Middlesbrough-on-Tees (Royal Exchange); London 11 and 12, Red Lion-court, Fleet-street; Newcastle-on-Tyne (50, Grey-street).

NATIONAL INSTITUTION FOR DISEASES OF THE SKIN.
PHYSICIAN: DR. BARR MEADOWS.

Patients attend at 227, Gray's Inn-road, King's Cross, on Mondays and Thursdays; and at 10, Mitre-street, Aldgate, on Wednesdays and Fridays. Mornings at 10; evenings from 6 till 9. Average number of cases under treatment, 1000; bound in cloth, gold lettered, 2s. each.

THOMAS ROBINSON, Honorary Secretary.

HIBBERT'S NEW THEORY and PRACTICE of MEDICINE, in Two Vols., Vol. I. being a treatise on the Nature, Cause, Cure, and Prevention of Diseases in Human Beings; Vol. II. on Animals. In paper cover, 1s.; bound in cloth, gold lettered, 2s. each.

Published and sold by JOHN HEYWOOD, Manchester; and SIMPKIN, MARSHALL and CO., London.

HIBBERT'S PATENT ANTISEPTIC, for stamping out Small Pox, Cholera, Fever, and all Fermentive Inflammatory Diseases. May be obtained through any Chemist, in bottles, price 1s. 1½d., and upwards.

W. HIBBERT, Cheetam, Manchester.

Just published, post free for two stamps.

WONDERFUL MEDICAL DISCOVERY,
Showing the true causes of Nervous, Mental, and Physical Debility, Lowness of Spirits, Indigestion, WANT OF ENERGY, PREMATURE DECLINE, with plain directions for PERFECT RESTORATION TO HEALTH AND VIGOUR IN A FEW DAYS.

The most important fact that these alarming complaints may easily be removed WITHOUT MEDICINE.

is here clearly demonstrated, and the entirely new and highly successful treatment, as adopted by the author, fully explained, by means of which.

EVERYONE IS ENABLED TO CURE HIMSELF

perfectly, and at the least possible cost.

Sent free on receipt of two stamps by W. HILL, Esq., M.A., Berkeley House, South-crescent, Russell-square, London, W.C.

THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.	Total divs.	Per share.	Last paid.
1500 Alderley Edge, c, Cheshire*	10 0 0	..	1 16 8	0 0 0	0 0 0	0 0 0	Jan. 1872
20000 Blaen Caeran, s-l, Cardigan*	1 0 0	..	13 1/2	13 1/2	0 2 0	0 1 0	Oct. 1871
15000 Boweswell Downs, t, c, St. Just	3 0 0	..	5 6	5 6	2 0	2 0	Oct. 1871
20000 Botallack, t, c, St. Just	91 5 0	..	210	190 200	608 15 0	5 0 0	Feb. 1872
20000 Brookfield, s-l, Cardigan*	100 0 0	..	95	88 9	110 0 0	2 0 0	Jan. 1872
40000 Brookwood, c, Buckfastleigh	1 16 0	..	7	6 1/2	1 7 6	0 5 0	Mar. 1872
60000 Cashwell, t, Cumberland*	2 10 0	..	—	—	1 0 0	0 0 0	Feb. 1872
50000 Castle-an-Dinas, t, St. Columb.	2 0 0	..	—	—	2 0 0	0 0 0	Feb. 1872
10000 Carn Brae, c, Illogan	25 0 0	..	121 1/2	140 145	265 10 0	3 0 0	Nov. 1872
24500 Cook's Kitchen, c, Illogan	19 14 9	..	46	46	8 14 6	0 0 0	Jan. 1872
867 Cwrt Erynn, t, Cardiganshire*	7 10 0	..	—	—	31 13 0	0 0 0	Jan. 1872
128 Cwmystwith, t, Cardiganshire	60 0 0	..	—	—	394 10 0	0 0 0	July 1868
29000 Derwent Mines, t, Durham	300 0 0	..	—	—	177 0 0	2 0 0	July 1868
1024 Devon Gt. Consols, c, Tavistock	1 0 0	..	125	120 130	1159 6 0	6 0 0	Nov. 1872
455 Ding Dong, t, Guival	49 14 8	..	—	—	7 10 0	0 0 0	15 0 0 0
4 400 Dolcoath, c, Camborne	10 14 10	..	90	95	91 9 2	15 0	Feb. 1872
15200 Drake Walls, t, Calstock	2 10 0	..	34	34	1 3 2	0 0 0	July 1872
6144 East Cardigan, c, St. Cleer	2 14 6	..	4 1/2	4 1/2	14 14 0	2 0 0	July 1872
300 East Darren, t, Cardiganshire	32 0 0	..	—	—	201 10 0	0 0 0	Sept. 1871
6400 East Pool, c, Pool, Illogan	6 0 0	..	10	10	12 6 2	0 5 0	Jan. 1872
1006 East Wheal Lowell, t, Wondron	3 0 0	..	18 1/2	18 1/2	19 8 6	0 12 6	Aug. 1871
2800 Foxdale, t, Isle of Man	25 0 0	..	—	—	79 8 0	0 0 0	Oct. 1871
8000 Frank Mills, t, Christow	1 0 0	..	—	—	4 8 0	0 0 0	Aug. 1870
3950 Gawton, c, Tavistock	8 10 0	..	1 1/2	1 1/2	8 0 0	0 0 0	Aug. 1870
40000 Glasgow Cardon, c, (50,000 £1 p., 10,000 £1 p.)	..	..	0 0 0	0 0 0	0 0 0	0 0 0	Jan. 1872
15000 Great Laxey, t, Isle of Man*	4 0 0	..	15	15	14 15	0 0 0	Feb. 1871
3000 Great Northern Manganese*	6 0 0	..	—	—	5 0 0	0 0 0	Feb. 1868
5500 Great Wheal Vor, t, Helston	40 0 0	..	9 1/2	9 1/2	5 14 6	2 0 0	Feb. 1871
1024 Gunnislake (Clitter), t, c	4 19 0	..	—	—	0 2 0	0 0 0	Nov. 1871
1024 Herodsfoot, t, near Lizardhead	8 10 0	..	37	36 38	80 0 0	1 0 0	Feb. 1872
25000 Killaloe, t, Tipperary	1 0 0	..	13 1/2	13 1/2	0 2 11 2	0 0 0	Dec. 1870
165 Levant, t, St. Just	10 8 1	..	—	—	101 0 0	2 0 0	Aug. 1869
400 Llansil, t, Cardiganshire	18 15 0	..	—	—	343 10 0	2 0 0	Mar. 1871
9000 Marke Valley, c, Cardan	4 10 0	..	4 1/2	4 1/2	7 8 0	0 0 0	Jan. 1872
9000 Minera Mining Co., Wrexham*	5 0 0	..	—	—	59 11 8	0 0 0	Feb. 1868
20000 Mining Co. of Ireland, t, c, *1/2	7 0 0	..	—	—	0 4 6 4	2 1 0	July 1870
6400 New Pembroke, t, c, Par Station	5 0 0	..	4 1/2	4 1/2	10 0 0	0 2 6	Nov. 1871
12000 North Hendre, t, Wales	2 10 0	..	—	—	0 2 6 0	0 2 6	Oct. 1871
2000 North Levant, t, c, St. Just	10 12 0	..	16	15 16	3 5 0 0	0 15 0	Aug. 1871
6610 North Wheal Croft, c, Illogan	3 11 8	..	1 1/2	1 1/2	0 5 6 0	0 1 6	June 1871
6594 Peden-a-drea, t, Redruth	8 2 0	..	—	—	0 5 0 0	0 5 0	Nov. 1871
256 Pendarves United, t, c, Camb.	86 0 0	..	45	46	24 0 0	0 0 0	Nov. 1871
5000 Penhalls, t, St. Agnes	3 0 0	..	4 1/2	4 1/2	2 5 6 0	0 0 0	Feb. 1871
5000 Phoenix, t, c, Linkinhorne	50 0 0	..	—	—	477 10 0	7 0 0	Oct. 1871
1772 Polberro, t, St. Agnes	15 0 0	..	—	—	1 7 6 0	0 10 0	Dec. 1871
2000 Poldice, t, c, Gwennap	10 0 0	..	31 1/2	31 1/2	1 10 0 0	0 10 0	Oct. 1870
12800 Prince of Wales, c, Calstock	1 0 0	..	—	—	1 0 6 0	0 0 0	Nov. 1871
1120 Providence, t, Uny Lelant	10 6 7	27	26 27	103 2 6	0 10 0	0 10 0	Dec. 1871
15000 Queen, s, c, Calstock*	0 0 0	..	—	—	0 2 0 0	0 1 0	Dec. 1870
12000 Roman Gravel, t, Salop*	7 10 0	..	18 1/2	18 1/2	0 10 0 0	0 5 0	Jan. 1872
8569 Rosewall Hill & Ransom, t	4 0 0	..	1 1/2	1 1/2	14 6 0	0 1 6	June 1871
10000 Sheldon, t, St. Austell	1 0 0	..	—	—	0 1 0 0	0 1 0	Feb. 1872
512 South Cardan, t, St. Cleer	1 8 0	..	220	220	678 10 0	4 0 0	Jan. 1871
5000 South Carn Brea, c, t	1 11 6	..	6 1/2	7 1/2	2 3 6 0	0 2 6	Mar. 1872
6122 South Condurrow, t, c, Camborne	5 5 6	..	5 1/2	6 1/2	1 2 6 0	0 7 6	Oct. 1872
6000 South Darran, t, Cardigan	3 6 6	..	—	—	1 1 6 0	0 1 6	Nov. 1870
496 Wh. Frances, c, Illogan	18 18 9	60	55 1/2	55 1/2	374 12 8	1 0 0	June 1869
424 Spearn Moor, t, St. Just	36 17 9	..	15 17	15 17	16 10 0	0 5 0	June 1872
940 St. Ives Consols, t, St. Ives	10 15 0	..	22	22 1/2	0 10 0 0	0 10 0	Feb. 1871
8771 St. Just Amalgamated, t	3 10 0	..	—	—	0 9 0 0	0 9 0	Feb. 1871
10000 Tankerville, t, Salop	6 0 0	..	18 1/2	18 1/2	1 18 0 0	0 6 0	Jan. 1871
26000 Terras, t, St. Aust. (div. on 12000 sh. only)	..	..	—	—	0 1 6 0	0 1 6	Feb. 1872
50000 Tincroft, t, c, Pool, Illogan	9 0 0	..	66	66	84 13 6	2 0 0	Nov. 1871
40000 Tin Cons., t, Holston	15 0 0	..	17 1/2	17 1/2	8 1 0 0	0 4 0	Dec. 1871
21000 Colorado Terrible, s-l, Colorado*	5 0 0	..	4 1/2	4 1/2	8 18 0	0 2 0	Dec. 1871
76162 El Padre, North del Rey*	0 14 0	..	23 1/2	23 1/2	2 3 2 0	0 4 0	Mar. 1871
25000 Eberhard & Aurora, s, Nevada	10 0 0	..	9 8 1/2	9 8 1/2	1 0 0 0	0 0 0	July 1871
70000 English and Australian, c, t	20 0 0	..	21 1/2	21 1/2	1 4 0 0	0 0 0	Mar. 1872
25000 Fortune, t, Spain*	2 0 0	..	—	—	2 2 3 0	0 2 6	Mar. 1872
49000 Kapunda Mining Co., Australiat	1 3 0	..	5 1/2	5 1/2	0 1 10 0	0 6 0	Nov. 1868
15000 Linares, t, Spain*	8 0 0	..	4 1/2	4 1/2	12 13 4	0 0 0	Sept. 1871
30000 Mineral Hill, s, Nev. (£100 deb. £5)	10 0 0	..	—	—	0 3 8 0	0 3 0	Jan. 1872
11000 Portland, t, St. France*	20 0 0	..	19	16 19	10 15 8 1	0 11 0	Dec. 1871
10000 Port Phillip, t, Clunes*	1 0 0	..	1 1/2	1 1/2	1 7 0 0	0 1 0	June 1871
12000 Scottish Australian Mining Co., t	1 0 0	..	7 1/2	7 1/2	0 6 0 0	0 4 0	Dec. 1871
12500 Sierra Butte, c, California*	3 0 0	..	5	5	0 8 0	0 2 0	Dec. 1871
12000 South Aurora, s, Nevada	6 0 0	..	2	2 1/2	0 12 2 0	0 5 0	June 1871
11000 St. John del Key, Brazil*	15 0 0	..	23	25 27	71 10 0	4 5 0	Dec. 1871
15000 Sweetland Creek, c, California*	4 0 0	..	3 1/2	3 1/2	1 8 0 0	0 4 0	Feb. 1872
10000 Flagstaff, s, Utah	10 0 0	..	—	—	0 1 1/2	0 1 1/2	Oct. 1870
40000 Fortune Copper Miners Co. of Western Australia	2 0 0	..	—	—	0 1 1/2	0 1 1/2	Oct. 1870
50000 Frontino and Bolivia, c, New Granada*	2 0 0	..	—	—	0 1 1/2	0 1 1/2	Oct. 1870
100000 General Brazilian, g*	1 0 0	..	—	—</			